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# **East Europe Report**

**ECONOMIC AND INDUSTRIAL AFFAIRS**

**No. 2135**

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# EAST EUROPE REPORT

## ECONOMIC AND INDUSTRIAL AFFAIRS

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CEMA COUNTRIES ECONOMIC COOPERATION DESCRIBED

Budapest ESTI HIRLAP in Hungarian 29 Apr 81 p 3

[Article by "halmi" entitled: "Common Plans for a 5-year period. Economic Cooperation -- Complex Program -- Computer Technology, Patents, Standardization"]

[Text] Increasing the efficiency of social production was made essential by the need to construct and to perfect a developed socialist society. Intensification is unavoidable, if for no other reason, because the reserves of extensive growth have been exhausted.

[Socialist Division of Labor]

In the interest of perfecting the structure of national production, cooperation among the fraternal socialist states is especially important. During the years when the comprehensive program was being implemented, we saw the development of a stable and broadly-based market. Year after year, the growth rate surpassed increase of the total trade. As an example, machine and equipment exports among the member states increased from 27 billion rubles in 1966-70 to over 90 billion in 1976-1980. Thus, in trade among these states the proportion of machines and equipment has increased steadily during the past decade.

We have to note here -- and we can also read this in one of the publications of the APN -- that trade in machine products among the CEMA countries is growing faster than the manufacturing of machines and equipment in any one of the member states. This proves the presence of two significant trends toward integration. The first of these trends is a steady increase in the socialist division of labor; and the second trend is the growth of the proportion of machines and equipment in the mutual trade among the CEMA states.

The most self-sufficient impact upon the intensification of production stems from the socialist international division of labor. The exchange of goods manufactured under the terms of specialization is steadily increasing. Reciprocal deliveries under the agreements of specialization, for example, have increased over seventy times. Their value has grown from 330 million rubles in 1970, to 25 billion rubles in 1980 (according to preliminary data). In 1980 there were over 120 multilateral and over 660 bilateral cooperative agreements in force.

The extent of the impact of these international agreements of specialization and cooperation upon the concentration of production of individual goods is demonstrated,

among others, by the following data: Within the area of CEMA states, the GDR and the Soviet Union is manufacturing 75 percent of the railroad passenger cars; Bulgaria 60 percent of the electric and motorized carts; Poland, the Soviet Union and Czechoslovakia 93 percent of the electric locomotives; Poland, Romania and the Soviet Union 94 percent of the tractors; and the Soviet Union and Czechoslovakia 92 percent of the power looms.

To Excel

The long-range cooperative plans in force until 1990 have brought forth various new possibilities for specialization and cooperation in international production. Among others, these plans call upon the member states to apply the division of labor to the development and to the manufacturing of large capacity technical equipment, whose quality should not only equal, but surpass the international level. There are 118 measures concerning the machine industry that have been incorporated into over 60 agreements. The two most significant of these agreements have already been signed. One of these, applicable to the period between 1981 and 1985, deals with the specialized and cooperative production of atomic energy plant equipment. Its realization is being supported by about 50 Bulgarian, Hungarian, Polish, Soviet, Czechoslovak and Yugoslav industrial associations and enterprises. Its goal is to enhance the solution of the energy and fuel supply problems of the member states. The second of these agreements deals with international specialization and cooperation concerning the development and manufacturing of computer technology equipment. We can best assess the significance of this agreement on the basis of the value of mutual deliveries, which, in the course of the next five-year plan, will exceed 15 billion rubles.

[Science, Technology]

We can expect a great deal of profit from the increased use of small computers in the national economic units. In the course of the next 10 years, this will significantly improve productivity within various branches of the metal processing industry, while at the same time increased returns on equipment, and decreased manpower requirements by several million persons. The general international agreement concerning the specialized manufacturing of oil refining equipment will contribute toward increasing the high level processing of crude oil.

In the course of fulfilling the goals contained in their comprehensive programs, the member states have increased significantly the degree of their scientific-technical cooperation. At the present, about 3000 scientific-technical institutes are participating in this cooperation. During 1980, these institutes have worked out over 1300 specific projects. They have made gains in the area of patents, the sale of licenses, as well as standardization. (In the last few years, CEMA states have registered about 10,000 patents and instruments of certification annually.

The CEMA countries have just completed the coordination of their Five Year Plans for 1981-1985. This work was performed in light of the conviction that the next 5 years will constitute a period of continued strengthening of the economic and scientific-technical cooperation among the member states.

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## MAIN DEVELOPMENT TREND FOR 1981-1985 PERIOD APPROVED

AU031525 Prague HOSPODARSKE NOVINY [Supplement] in Czech No 16, 1981 pp 2-16

["Main Trends of the CSSR's Economic and Social Development for the 1981-1985 Period"]

[Text] The period of the seventies will go down in the history of building socialism in our country as a decade of stable, peaceful development and fruitful progress. The general line of building an advanced socialist society adopted at the 14th Congress, and further developed by the 15th CPCZ Congress, became the firm basis of the party policy. The socialist system and the working people's power have been consolidated; the unity of the working classes, cooperative farmers and the intellectuals have been strengthened; the unity of Czechoslovak peoples, its nations and nationalities has intensified and the friendship and alliance with the Soviet Union and all fraternal socialist countries has been strengthened. The CSSR is a firm part of the socialist community and the international revolutionary movement, a firm part of the struggle for social progress and peace in the world.

Under the CPCZ's leadership, the working people have achieved--by virtue of their dedicated work and intensive activity--new significant successes. Our country's economic potential has increased, socialist industrial production relations have been strengthened; our population's material and cultural levels have been raised and social welfare systems were upgraded. The nation's defense capabilities were further strengthened.

In that process we have had to overcome considerable obstacles and difficulties, because the implementation of the tasks set by the 15th CPCZ Congress took place under considerably more complicated economic conditions than was expected. We have not always succeeded in facing up to those adverse influences effectively and in time.

The overall results that have been achieved form a solid foundation for our society's broad development in the eighties. The main trends of the CSSR's economic and social development for the 1981-1985 period follow on the attained results, take into account the demanding internal and external conditions, and express--in keeping with the policy of building an advanced socialist society--the basic goals and ways to achieve them in the seventh 5-year plan.

## 1. Economic and Social Development After the 15th CPCZ Congress

Outstanding results have been achieved in fulfilling the basic goals of the economic and social policy formulated by the 15th Party Congress, in spite of the complicated conditions. Despite the generally lower dynamism of economic development than anticipated by the sixth 5-year plan, the raw material capital asset base continued expanding and production increased steadily. Produced national income grew by 20 percent; the increase in labor productivity accounted for almost 90 percent of this growth. In keeping with the sixth 5-year plan, the formation of resources in the Slovak Socialist Republic [SSR] achieved a faster rate than in the Czech Socialist Republic [CSR]. Industrial production increased by 24.7 percent, construction by 24.9 percent and agricultural output by 9 percent. Significant structural changes were achieved in the production sector. The value of capital assets increased more than 30 percent compared with the last year of the fifth 5-year plan. The CSSR's participation in the international division of labor intensified and our economic cooperation with the USSR and other CEMA countries increased.

Despite those undisputably positive overall results, the planned goals were not fully reached. The implementation of the results of research and development, the use of fuels, energy and raw and processed materials was unsatisfactory as were the capital asset and labor utilization rates. Shortages and problems in the distribution system, in range of products and steady flow of deliveries, persisted. The strategic policy aimed at rapidly improving efficiency and quality of all work was not sufficiently enforced within the overall economic results.

The population's living standards increased proportionately to the growth in production. Average monthly wages of employees in the socialist sector of the national economy (less the united agricultural cooperatives) came to KCS2,642 which is 14.7 percent higher than in 1975. The comparable net remuneration of cooperative farmers increased 20 percent in the sixth 5-year plan and achieved about the same level of income as the other employees in our economy.

Data on per capita consumption show that in basic foodstuffs, clothing and household goods a level, comparable with that of industrially advanced countries, was achieved. Retail trade turnover increased by 20.2 percent; sales of foodstuffs increased 19 percent. Per capita meat consumption increased to 84.6 kilograms. Sales of industrial goods increased by 21.2 percent. Sales of consumer durables such as washing machines, radios and television sets were high. While at the beginning of the 5-year plan there was one passenger car per 10 inhabitants, by 1980 that ratio was roughly 1:7.

The per capita value of free services and social security payments in 1980 was KCS8,900 which is KCS1,670 more than in 1975. All social security transfers were 35 percent higher in 1980 than in 1975. By international standards, CSSR maintains a foremost place in the welfare of family, children and older citizens who can no longer take part in the work process. Care for the elderly and solitary citizens was expanded. The standards of enterprises' social policy were raised with the trade union's participation; the number of employees receiving meals through enterprise cafeterias increased and the number of participants in all forms of trade union recreation exceeded 3.4 million a year. Throughout the sixth 5-year plan, more than KCS25 billion were spent on care for working people from the cultural and social services fund.



Housing situation improved further. A total of 647,000 new modern apartments, which was about 32,000 more than in the preceding 5-year plan, were released to public. The average annual construction of 8.7 apartments per 1,000 inhabitants in the course of the 5-year plan means that the CSSR is among countries with the highest intensity of housing construction. A full 90 percent of all newly built apartments belong to the first category; the share of apartments with two or more bedrooms built in collective construction reached 50 percent. However, we did not succeed in achieving a more marked progress in ensuring comprehensive public facilities and utilities in some of the new housing settlements. The extent of housing liquidations was disproportionately high.

The goals for developing the educational system, culture and health care were fulfilled and, in some sectors, even exceeded. By the end of 1980, medical facilities had at their disposal 190,400 beds; 119,200 in hospital beds. The number of inhabitants per physician decreased from 366 in 1975 to 315 in 1980.

The population's educational level increased. The improvement of our school system continued, care for preschoolers and school age children increased. The number of children placed in kindergartens was roughly 85 percent of their age group--the planned increase was exceeded by more than 100,000. The number of children receiving their meals in school cafeterias exceeded 2.3 million and the original plan was thus exceeded by 15 percent.

The implementation of elective programs, including the Action-2 [community self-improvement action] contributed significantly to the village and municipal developments.

The use of opportunities for recreation at home and abroad increased substantially. In the last few years, more than 10 million citizens went abroad every year.

In the period of the sixth 5-year plan, the share of industry in resource formation further increased; and its role in developing the agriculture was enhanced. Significant structural changes were brought about in the area of industrial production. The fastest growth of 38.5 percent was achieved in the engineering industry; in the wood processing industry--33.3 percent; and in the chemical industry 29.6 percent.

Considerable attention was devoted to developing the fuel-energy base and to reducing the consumption of fuels and energy. Coal and lignite extraction increased 7.6 percent and came to 123 million tons in 1980. We did not manage to overcome an unfavorable situation in the North Bohemian coal district. The use of giant strip mining machinery in stripping the overburden lagged due to the lack of operational reliability. Electric power generation increased by 22.6 percent, and its annual output was 72.7 billion kilowatt hours by the end of the sixth 5-year plan.

In the metallurgic sector, we have developed a base for production of specialty steel. As far as engineering and the electronic industry are concerned, some technologically demanding engineering branches--such as the production of nuclear powerplant equipment, semiconductor low voltage technology, plastics and rubber processing machinery--recorded a rapid development.

The role of the chemical production in the national economy increased, especially due to the developments in the petrochemical industry. In the consumer goods industry, priority was given to developing production in branches utilizing domestic raw materials.

The processing industry, however, did not sufficiently adapt the structure and quality of its output to the needs of the national economy and the public. Engineering industry did not fully succeed in adapting to the demanding conditions of the world markets and did not attain its export goals.

Despite adverse weather conditions during the 2 years of the 5-year plan, gross agricultural production increased in the 1976-1980 period by 9 percent--animal production 11 percent and plant production 6.7 percent. Grains production increased 7.8 percent. The market production of animals for slaughter and milk production increased by 13 percent.

These results were made possible by additional inputs into agriculture. Deliveries of industrial fertilizer amounted to 254.3 kilograms of pure nutrient per hectare of agricultural land in 1980; and production and deliveries of multi-nutrient fodder mixtures to almost 7.8 million tons. The capital inputs were KCS76 billion for the 5-year plan; machinery and equipment accounted for almost KCS34 billion of that sum. Research and development and the attained levels of concentration, specialization and integration also contributed significantly to the agricultural production growth.

Despite difficulties in obtaining raw materials, the food industry output increased 19 percent during the sixth 5-year plan and deliveries to the domestic markets 25 percent. As regards the structure of production and deliveries, the share of foodstuffs having a higher [nutritional] value has increased.

The imbalance in the developments of plant and animal production, along with fluctuations in the harvests caused by adverse weather conditions, made it necessary to effect relatively costly unplanned imports of grain and fodder, mainly to ensure the high level of meat production. We did not succeed in halting the shrinkage of agricultural land.

Transportation parks were further modernized. Steam locomotives in railroad transportation were largely retired. A total of 327 kilometers of railroads were newly electrified and 215 kilometers were equipped with automated [control] systems. The Prague main railroad station's new hall and additional sections of the metro were commissioned. The reconstruction of the Prague railroad junction and the construction of the southern railroad line in Slovakia continued.

In the course of the sixth 5-year plan a total of KCS716 billion were invested in the national economy; its active component, such as machinery and equipment, grew at a fast rate. Considerable resources were devoted to developing the fuel-energy base. New mining facilities producing roughly 15 million tons of coal were put into operation, mostly replacing exhausted deep and open cast mines. A total of 4,300 megawatts of new power-generating facilities went on line, among them two 440-megawatt reactor units in the Jaslovské Bohunice Nuclear Powerplant. Facilities for the production of 245,000 tons of steel tubes, as well as significant new facilities in the chemical and in engineering industries were built. Construction in the CSSR capital of Prague, SSR capital of Bratislava and the North

Siberian region continued to be very intensive. We participated also in the construction of the gas pipeline in the USSR. However, we did not succeed in achieving the set goals in reducing the number of unfinished projects, or in reducing the average construction time. An average of 30 percent of new facilities were not started up on schedule.

Industrialization of the construction sector continued and its concentration on the planned state key projects improved. The structure of the construction work, however, did not fully meet the requirements of the planned capital construction and, in particular, did not ensure a timely completion.

In the production sector we did not succeed in improving the utilization rate of capital assets, machine underutilization was excessive. Not a single year of the sixth 5-year plan did we achieve the planned rate of retiring of aged capital assets.

The research and development base was expanded and links between research and production were intensified. The results achieved in improving technological standards were particularly reflected in the reduced standard fuel consumption for producing one kilowatt hour, in the higher share of steel production from oxygen converters, in an increased share of cotton yarn produced on spindleless spinning machines and in the higher share of modern production technologies and machine systems marked by a high degree of mechanization and automation.

The scientific-technical cooperation with the Soviet Union and other CEMA member countries was expanded. The number of joint tasks increased; the number of background data exchanges has doubled.

The movement of inventors and innovators based on the working people's initiative represented a significant intensification factor in economic development.

However, the results of research and development and its application did not meet the needs of the national economy. We did not succeed in markedly accelerating the research-development-production-use cycle. There still is a considerable untapped potential for raising the technological standards and quality of our products. Insufficient product innovation and its low technological levels and quality cut down, in particular, on our economy's exports and caused the failure to meet export goals, especially in engineering industry.

The Czechoslovak economic integration within the international division of labor intensified during the sixth 5-year plan. The overall foreign trade turnover in adjusted prices increased by roughly 30 percent. Economic cooperation with socialist countries, especially with the Soviet Union, expanded.

An important role in integrating the Czechoslovak economy into the international division of labor had our participation in implementing the comprehensive program of socialist economic integration and in preparing the implementation of the CEMA member states' long-term goal-oriented cooperation programs. Czechoslovak commitments ensuing from our participation in the joint construction of iron ore mining and processing plant for ferro-alloys in the USSR Kyembayevskiy Asbestos Cement Combine; the 750-kilovolt transmission line from the USSR to the Hungarian People's Republic; and, in particular, the joint construction of the Soyuz Gas Pipeline

were successfully met. These joint projects were already reflected in deliveries to CSSR in the course of the sixth 5-year plan. CSSR-Soviet cooperation in developing nuclear engineering and CSSR-GDR cooperation in olefin chemistry were other successful examples of bilateral cooperation.

By the end of the sixth 5-year plan, mutual trade exchange with socialist countries amounted to 65.5 percent of the overall CSSR foreign trade turnover. Deliveries of crude oil, natural gas and a number of other raw materials but also of machinery and equipment from the Soviet Union made possible further developments in our national economy. Cooperation with the USSR at the same time ensures a permanent market for our industry's products. The adoption of a long-term production specialization and cooperation program between the CSSR and the USSR created prerequisites for further raising the effectiveness of our bilateral economic relations.

Development of economic relations with nonsocialist countries also continued. The material volume of our trade with those countries further increased despite the deepening crisis of the capitalist economy.

Measures aimed at improving the planned management system of the national economy were developed and, in keeping with requirements formulated by the 15th CPCZ Congress, some of them were already implemented toward the end of the sixth 5-year plan. Selected economic production units tested the most important qualitative aspects of planned management within the framework of the comprehensive experiment in efficiency and quality management.

The approved set of measures for improving the planned management system of the national economy was used in preparing the draft seventh 5-year plan and the draft 1981 state plan. The changes in the system and mechanism of management and planning emphasize the application of intensive factors of economic growth. Great demand is placed on the quality and linkages in plans, on better use of khozraschet [cost accounting management system], on economic incentives, higher managerial standards and greater reliance on the initiative of the work collectives.

The results of economic and social developments in the sixth 5-year plan, the attained development level of production labor, the available reserves, the socialist relations in production, our people's qualification and know-how and the working people's active participation and initiative reflected in the development of socialist competition and in the movement of socialist labor brigades provide favorable conditions and ingredients for the necessary effective economic growth and social development of our socialist society in the coming years.

## 11. The Goals in Economic and Social Developments in the 1981-1985 Period

The general line of building an advanced socialist society remains the basis of the CPCZ's continued economic and social program in the period of the seventh 5-year plan.

The key objective of party policy is--despite the substantially more complicated external and internal conditions--to maintain and improve the achieved high standards of living and social services, in accordance with the expected results in developing the national economy.



For a number of external and domestic reasons, the implementation of that goal will be very demanding. It is necessary, for instance, to expect considerably more difficult conditions and higher costs in acquiring essential resources of fuels and energy, crude oil, metals, foodstuffs and other raw and processed materials both from imports as from domestic production. It will be considerably more difficult to secure funds to pay for imports of refined fuels. It will be necessary to come to terms with intensified competition on Western markets and an increased demand by foreign and domestic customers for higher quality and technological standard of our products, with slower growth of the labor force and substantially limited investment opportunities and so forth.

To achieve the goals of the seventh 5-year plan under the given conditions requires a consistent emphasis on improving efficiency and quality of work, effective structural changes, based primarily on accelerated exploitation of the results of research and development, intensification of CSSR's participation in the socialist international division of labor--especially cooperation with the USSR--and improvement of the planned management while increasing the participation by the workers.

To ensure that economic and social policy objectives are met, it is necessary to create conditions for increasing the national income in the course of the seventh 5-year plan by 14-16 percent and to cover 90-95 percent of its growth by raising the labor productivity. Therefore, it is necessary:

1--to make better and more efficient use of all types of fuels and energy, raw and processed materials and existing fixed assets and labor in all sectors of the national economy; to pay special attention to improving product quality and technological standards. To achieve this objective, we must consistently implement measures aimed at improving the planned management system and, based on these improvements, further reduce the costs and obtain higher returns on production assets in the national economy in the 1981-1985 period:

--by significantly reducing consumption of raw and processed materials through better and more efficient use and a significant reduction in material intensive national production. It is essential to ensure further expansion of production with substantially slower increases or even a levelling off in the use of both our own and imported raw material and energy resources; to use improved indicators and rates of consumption of fuels, energy and raw and processed materials and come up with adequate substitutes, especially as regards imported materials; we must introduce better inventory management methods; increase the use of secondary raw materials and to control more effectively their collection and utilization; we need to devote extraordinary efforts to economical use and improvements in conservation in crude oil and natural gas. We need to achieve an average annual savings in fuels and energy of at least 2 percent and 4.5-5 percent savings in metals in our national economy in the 1981-1985 period and to develop a comprehensive support of the pertinent state goal-oriented programs concerning a more rational use of these basic material resources.

--by a resolute turnabout in the use of fixed assets, paying prime attention to improving the machinery operating rates by increasing the shift ratio, increasing the share of capital in improvements and modernization, and accelerating the liquidation and retirement of obsolete and inefficient fixed assets. It is essential to reduce the excessive number of unfinished capital projects, accelerate their

completion, shorten the needed construction time and speed up achievement of planned parameters in facilities coming on stream and limit the scope of investment on new demanding large construction projects with a long-term return on capital.

--By increasing the production and output mainly through higher labor productivity. Increases in manufacturing must be ensured essentially without any additional labor. In the construction sector it is also necessary that labor productivity increase faster than the volume of construction despite any changes in the work structure. The existing labor resources and reserves in labor productivity must be used more rationally and efficiently, especially by improving the organization of production and labor, making full use of the working hours, introducing a comprehensive mechanization and automation of production processes, modernizing obsolete production facilities and streamlining administrative procedures. The employee qualification requirements must be closely followed and much better use must be made of the employees' know-how for raising the technological standard and quality of production, technological processes and organization of production.

2--A comprehensive socialist rationalization program must be considered a significant factor in the growth in efficiency. We must emphasize implementation of investments which are not very capital intensive and provide a rapid return on capital. The structure of production and the dynamics of development must be decisively subordinated to the needs for effective development of national economy and give priority to increasing the export potential while reducing the import requirements.

Structural changes in production, oriented primarily toward creating favorable conditions for export based mainly on improved quality and technical standard of the products is to be implemented. The development of production enabling reduction in imports and self-sufficiency of the Czechoslovak national economy is to be emphasized in those production sectors for which favorable natural and economic conditions exist in CSSR.

3--We must ensure a more effective integration of the Czechoslovak economy in the international division of labor so as to contribute to further improvements in the technological standards of production, labor productivity, reducing energy and material intensive production runs, increasing efficiency and expanding large lot production.

Further develop the international socialist division of labor, search for new ways to expand it, to improve the forms of the socialist economic integration and establish closer linkage of the Czechoslovak economy with the economies of the CEMA member states, particularly with the Soviet Union.

Put emphasis on a more intensive development of advanced forms of international cooperation, especially production specialization and cooperation, and to fulfill obligations arising for the CSSR from agreements on integration of actions of multilateral cooperation, long-term trade agreements and bilateral agreements on economic cooperation.

Continue international cooperation with the nonsocialist countries in economy, science and technology as well as in other fields for mutual benefits.

6--We must resolve the key problems of the development of an integrated Czechoslovak economy to guide the economic development of the CSR and the SSR toward a still more efficient solution to a continued balanced development of the Czechoslovak national economy. Obtain maximum benefits from the natural and economic conditions, from optimal employment of resources and potential--especially of the industrial technological base and a growth in the labor force. On this basis, achieve a more dynamic development of the economy in the SSR and increase its share in the formation of countrywide assets. In both republics, we must pay closer attention to the solution of key problems in the further development of an integrated Czechoslovak economy, increasing its export potential and effectiveness. To achieve the established production and mining goals in key industrial centers and further development of the CSR capital Prague and the SSR capital Bratislava.

7--We must continue to improve the planned management of the national economy as one of the main instruments for resolving the tasks of further social and economic development. Through the implementation of the set of measures for improving the planned management system and its further development we must create conditions for and carry through a systematic, a marked intensification, export effectiveness and potential of the Czechoslovak economy.

### III. Implementation of the Research and Development Results in the National Economy

By consistent practical application of the results of research and development at all levels of management, we must raise substantially the technical-economic standards of production and achieve a marked improvement in the overall efficiency of the Czechoslovak national economy.

#### 1. The Goals of Basic Research

The goal of Czechoslovak science is to make discoveries and take advantage of the discoveries of world science to fill the needs in building an advanced socialist society. This requires concentrating research capacities on key problems in research and development, more consistent exploitation of the potential of integration of socialist sciences and implementing new, more efficient methods of transfer of scientific discoveries into actual production.

The research in the individual branches of science is to be carried out as follows:

In physics, we must expand the basic findings to solutions in material, technological and parts problems in the areas of electronics, computer technology and engineering, and find ways to obtain, transform and utilize energy more efficiently. To develop mathematical methods and means and use them effectively in socialist practice.

To orient the earth and space sciences toward the development of the domestic raw material resources, toward the solution of problems pertaining to the mining of deposits under precarious conditions, and toward improving the methods of processing and utilizing raw materials. Further, toward establishing, protecting and regionally exploiting water resources, toward better predicting climatic changes, economic use of the countryside as well as modifying and protecting the environment.

In technology, the goal is to establish foundations for developing new specialty metals and alloys. We must intensify research into the behaviour of mechanical systems for the needs in the construction of large energy generation plants; provide foundations for developing high voltage electronics, controls and automation technology aimed at cybernetics and electronics applications.

In the chemical sciences, the goal is to expand the knowledge of relationships between the structure and properties of substances; provide foundations for preparing new substances with specific combinations of properties and for new unconventional technological procedures with a particular view to nonwaste-producing technology, conservation of raw materials and energy, and environmental protection.

In biology the goal is to expand the knowledge enabling a rational intervention in the functions of living organisms. To expand the foundations for molecular and genetic engineering and for the bioengineering of fermentation processes and processes based on the principle of biocatalysis; and to develop additional biologically active substances for use in health, agriculture and the food industry.

The aim of the bio-agricultural, forestry and ecological sciences is to be the acquisition of knowledge about the laws governing the development of organisms, increasing fertility and protection of the soil, clarifying the influences exerted by the process of civilization on the sources of the biosphere, and acquisition of data for improving the methods of protecting and developing the human environment. To expand knowledge about the factors influencing the plant and animal productivity and to contribute to their protection against diseases, pests and other undesirable influences of external environments.

In the bio-medical sciences, the goal is to expand knowledge about the basic organisms in the development of man and the environmental influences affecting him under the conditions of the developing civilization. To provide foundation for improving the prevention, diagnosis and treatment of nationally significant diseases and pathological conditions.

In the social sciences the goal is to analyze, in close cooperation with the other socialist countries, the current social phenomena in our country and in the world. To stress improved knowledge of objective natural socio-economic phenomena based on the Marxist-Leninist approaches. To lay foundations for the party's programmatic activities while solving the most significant problems of continued economic and social developments of our society.

## **2. Tasks of Technological Developments**

To establish, at all management levels, vital links between the technological development plans and the other elements of the national economic plan; particularly the production plan, the designs and the plan for replacement of basic assets. More than ever, we must ensure that the technical developments, in their practical application in production, form the basis of 5-year plans for developing the economic production units and enterprises.

The management of technological developments must concentrate on a more effective exploitation of the results of research and development work, and that the best



possible use be made of licences. We must achieve a systematic application of the results of research and development, and the use of licences as well as results of scientific-technical cooperation through a priority formulation of the planned tasks for production and replacement of capital assets at all management levels.

To achieve the planned output of new products within considerably shorter periods from the start of production, we must concurrently eliminate technologically obsolete products. We must substantially increase the share of new products, products in the first category of quality and high technology parameters in the total volume of production.

In introducing new products and technologies, we must concentrate primarily on least capital and foreign currency intensive resources and actions with the most favourable conditions for increased quantity and quality of production and our success on the world markets.

The aim of research and development work and its application at all management levels is to be primarily toward solving the tasks leading to:

- New products and technologies enabling us a more efficient use and conservation of fuels and energy, metals, and total processing of domestic and imported raw and processed materials;

- Significant structural changes, particularly intensifying the developments in electronics, and microelectronics as a basis for automating the industry, transportation, communications, agriculture and other sectors; and at accelerating the developments of engineering assembly sectors, particularly hydraulics;

- Effective completion of petrochemical processing complexes and developing the sectors of qualified chemistry, particularly special polymers, rubber and plastic chemicals, dyes, paints, agrochemicals and packaging materials;

- More intensive use of all types of secondary raw materials utilizing nontraditional and secondary energy sources;

- Enhancing the utility and service life of products and to accelerate the modifications particularly of machinery, equipment and engineering consumer goods, while achieving advanced technological parameters enabling us a world market penetration;

- Implementing a higher level of mechanization, automation and robotization of complete production processes, lines and stations for achieving a more intensive time and capacity utilization rate of machinery and equipment, laboratories and testing equipment while making full use of the automated technological process controls in the industry, construction, transportation, communications and agriculture;

- Broader implementation of mechanization and automation methods in operations and handling, including industrial robots and handling equipment;

- More advanced methods of streamlining the inventory management system and expanding the standardization and uniformity in packaging;

--Developing efficient large-scale production technologies, breeding methods and biochemicalization in agricultural plant and animal production, as well as rationalizing forestry and water management and reducing environmental pollution;

--Introduction of new diagnostic methods, treatment and prevention for the most serious diseases, and introduction of new and effective medical drugs into production.

We must improve the effectiveness of the research and development base, motivate the researchers to implementation of the results of their work and concentrate the means and efforts of the research and development base on the most significant tasks, primarily the state plan and technological development, with the aim of substantially shortening the time for problem solving and thus toward a marked acceleration in research-development-production-utilization cycle.

Establish in advance conditions for actualization of the results of research and development in production and in national practice and thus shorten substantially the period between the solution of the problem and its implementation.

Cancel research and development projects which lack even the potential for a possible practical use. We must strengthen the production and construction design capacities at selected research institutes formed as research production units.

In order to strengthen the links between basic and applied research, we must increase the cooperation between the work sites at the Czechoslovak Academy of Sciences, universities, research institutes, central branch agencies and enterprise research labs.

In the international scientific-technological cooperation, we must concentrate primarily on solving problems expected to generate a production cooperation potential or at least production specialization but also toward higher forms of scientific-technological cooperation, i.e. toward cooperation on the basis of contracts and the establishment of joint problem solving groups. Develop and improve the system of scientific and technological projects.

The purchase of licences must be primarily oriented toward securing the state goal-oriented programs, rapid implementation of significant product innovations and development of products with highly practical attributes.

We must, in every way, develop inventiveness and innovation as a significant component of the scientific-technological research. We must strive to step up the share of products and technologies based on latest discoveries, inventions and patents.

The creation of standards must be aimed at making the best use of techno-economic parameters of raw and processed materials and products; simultaneously, we must strive for a maximum international standardization, particularly within the CEMA framework.

We must strengthen the objectivity of evaluation of technological processes and verification of accuracy of required parameters through the development of metrology [science of measuring]. Mandatory evaluation of products by state testing stations

must be expanded to include other groups of products according to the needs of our domestic and foreign trade; the quality controls must also be moved as much as possible into preproduction phases.

#### IV. Industrial Developments

Industrial production will play an important role in continued improvements of our national economy. By 1985, the volume of production is to increase by 18-20 percent. In view of the necessity to reduce the cost of production materials, the overall increase in the adjusted value added must be accelerated. Primary attention in developing the industrial production must be devoted to the structure of production and its utilization, particularly for ensuring a 32-35-percent increase in [the volume of] deliveries for export, while increasing the quality and technological standards of [our] industrial products to the maximum possible levels.

Labor productivity in the industry is to increase at least 17-19 percent in order to achieve a more than 90 percent growth in production. This is to be done through improvements in production and work organization, better utilization and continued capitalization of labor, intensification of the international division of labor and [further] popularization of the socialist competition.

The growth in labor must primarily be used to expand the shift ratio in the plants where the production is aimed at satisfying exports and for newly added capacities, particularly in the developing production sectors.

In the industrial production structure we must continue to expand the role of engineering while accelerating the developments in the electronics industry and other supporting sectors influencing the rise in technological standards and quality of final engineering products. The preferential expansion of the electronic industry material base must set up conditions for enhancing the export capabilities and the efficiency of the national economy. We must especially pay attention to developing the branches having their own raw material base.

The most important designs in developing production and its structure, as well as rationalizing the consumption of fuels, energy and metals must be included in the state goal-oriented programs. Investment funds for rationalization programs must be specifically earmarked in the plan.

In individual industrial sectors, the following most important tasks must be ensured:

##### 1--Fuels and Energy

The central task of the management policy is to accelerate the national economy energy conservation measures with a minimum increase in fuel and energy sources. To achieve a balanced fuel-energy flow and a further growth in the national income, it will be necessary to ensure a relative conservation of roughly 12 million tons of standard fuel by 1985 over the year 1980.

In keeping with the state goal-oriented program of rationalizing fuel and energy consumption, extraordinary attention must be devoted to measures for introducing less energy-intensive technologies making full use of new, untraditional and

secondary power sources, and toward changing the production structure in favor of better quality and less energy-intensive products. We must also ensure reduction in energy requirements through better utilization rate of fixed assets and reduced demands on materials in the economy, as well as through conservation in the nonproduction sphere. The necessary conditions for ensuring these goals must be established in the raw material-capital asset base, particularly in the engineering industry.

Coal and nuclear fuel must be regarded as primary sources of power and heat generation. In research and development we must develop new methods for utilizing low grade coals, crude oil, and we cannot expect an overall increase from this resource, must be used primarily for chemical production and the transportation needs; natural gas resources must primarily be reserved for technological uses. The consumption of crude oil products in power and heat generation must be quickly reduced.

Throughout this area, we must consistently see to it that the investments required for expanding the extraction and power production resources be minimized and the most conservative implementation of rationalization measures ensured.

In 1985, a total of 99-100 million tons of brown coal and lignite and 27-28 million tons of bituminous coal must be extracted.

In bituminous coal extraction we must strive above all to increase the extraction of high grade, particularly coking coal.

The sources of graded coal must be given priority to cover the population's needs. Other consumption must be reduced through the greater use of powder coal. Our boiler assets in the plant power industry as well as in housing must be gradually adjusted or rebuilt to correspond to this structure and quality of coal.

In surface mines, particularly those in the North Bohemian brown-coal basin, the problems in the removal of the overburden must be solved through a modernization and innovation in technological complexes so as to improve the performance of large equipment units, ensure smooth operations and reliability of the excavators and conveyor belts. New extraction capacities must be added, above all, by accelerating the opening up and expansion of the Vrsany, Bylany, Merkur, Brezno, Czechoslovak Army, Sverma and Chabarovice strip mines.

The development of the large Maxim Gorkiy open cast mines must be accelerated to the maximum. Extraction work in the mines of the western part of the Sokolov coal basin must be intensified.

The important national task of the coal industry is to continue to improve the miners' working and living conditions. It is particularly necessary to emphasize care for labor safety and to further implement measures in the wage, social and health spheres, as well as in housing construction, thus aiding the necessary recruitment of additional labor for the mining industry.

In coking we must ensure the construction and modernization of coking batteries to replace facilities nearing the end of their lifespan, both in the areas of fuels and metallurgy. In order to increase coke production from lower grade coals, we must introduce advanced technology for preparing the coal charges.



In the gas industry, conditions must be established for further increasing the imports of natural gas by completing the construction of the Konsorelun transit gas pipeline. The reliability of the gas distribution system must be enhanced and the construction of underground heating gas reservoirs continued.

The extent and efficiency of geological surveys for crude oil and natural gas in the Moravia and Slovakia areas must be speeded up and expanded, and the techniques and technologies of very deep bores used to enlarge extractable reserves.

In the power industry we must achieve an overall electric power generation of 80-83 billion kilowatt hours in 1985 of which 15 billion should be nuclear power.

The development of the nuclear power complex must be ensured in cooperation with the USSR. The V2 Jaslovske Bohunice and Dukovany nuclear power stations must be made operational and the construction of further nuclear power stations at Mochovce and Temelin initiated. This requires that we improve the entire cycle of planning, preparation and realizing of the construction projects; that we simplify the designing methods, centralize the design, construction and assembly facilities, intensify the work progress at the construction sites and improve their management. Appropriate metallurgical, engineering, and building production bases must be systematically developed for domestic construction and for export.

Innovations and general repairs and modernization must be carried out to enhance the reliability of electric power station facilities.

The operations of electric and thermal power stations must be rationalized. A use of 373 grams of standard fuel per 1 kilowatt hour of produced energy in steam power stations must be achieved by 1985. The construction of desulphurizing facilities in the Tusimice II electric power station must be prepared and started.

In view of the growing role of electric energy in the fuel-energy balance, the construction and modernization of distribution networks must be accelerated to enhance the reliability of electric power delivery to consumers.

The integration of the Czechoslovak electrification system with the systems of CECA member countries must be strengthened. The Czechoslovak participation in construction of the Khmel'nitsa nuclear power station on USSR territory is essential.

To achieve the planned savings in the primary sources of energy and labor and in improving the environment, we must accelerate the district heating program based on the use of brown coal; prime attention must be devoted to the cogeneration of electric energy and heat. In this connection, we must carry out the conversion of condensation electric power stations into thermal ones and realize the program of substituting for high grade fuels; the cooperation and coordination between departmental planning and zonal and territorial planning must be improved, especially by merging of investments. Untraditional energy resources must be made use of, and refuse incinerating plants gradually built in industrial population centers.

#### **2--Metallurgical Industry and Metal Consumption**

In essence we must proceed from the need to maintain the achieved levels in metal production. Therefore, the handling of metals must be substantially improved

In all sectors of the economy so that in the course of the seventh 5-year plan the comparative average savings come to 4.5-5 percent annually. In addition, we must make improvements in regulating prudently the consumption of raw and processed materials from ferrous and nonferrous metals. We must speedily prepare and realize measures in design, construction, and technology of production, as well as in changes of the production programs which will enable us to achieve the systematic norms of consumption and savings of ferrous and nonferrous metals, as set down by the state goal-oriented programs for rationalizing metal consumption. We must concentrate more on geological research and development of domestic ore extraction.

Further measures for reducing the use of nonferrous metals must significantly contribute toward minimizing the consumption of nonferrous metals in all national economy production sectors, particularly in engineering and construction. In the building industry we need to ensure substitutions of metallurgical products made from aluminium by other materials.

The quality and range of production goods must be substantially improved, the share of the use of high grade steel and of efficient products and production increased. The consumption of metals in the metallurgical cycle reduced and scrap metal systematically reused. Extraordinary attention must be devoted to collecting, processing and fully utilizing scrap metal, including consumer product scraps. In developing the processing facilities, it is necessary to give priority to separation of individual types of metals. The turnover of the country's metal assets must be accelerated.

In pig-iron production we must ensure a continued improvement in technology and performance and a reduction in standard fuel consumption. The blast furnaces are to be equipped with bell-less input throats, by introducing automated production controls using computer technology, increasing blasting temperatures and improving the charge preparation technology.

The development of steel production must be oriented toward expanding modern conservation technologies in which the charge materials are utilized better than before and which enable both a more balanced production while improving its quality. We must continue developing production in oxygen converters and introduce continuous casting, furnace-less steel refining and also intensifying work in electrical furnace plants.

In the production of rolled materials we must ensure an improvement in the product mix by stepping up the production of medium and very small profiles, of profiles for more economic constructs, annealed heavy sheets and isotrope dynamo sheets. The range of exported rolled materials must be substantially improved, particularly by dropping products with a low amount of processing and those made of low grade materials.

Increased attention must be devoted to the effective utilization of metal charges. With the construction of continuous steel casting, abolishing of obsolete and inefficient mill trains and start-up of new large-capacity rolling mills, we must aim at reducing the steel consumption by 1985 by at least 17 kilograms per ton of produced rolled materials, as compared with 1980.

The developments in the manufacture of metallurgical intermediate goods should aim at increasing the production of cords for tires and conveyor belts, welding materials and springs, while making the maximum use of existing capacities.

To achieve a high rate of use of nonferrous metals in the metallurgical cycle, we must introduce continuous processes for intermediate goods and use refining and new melting methods to ensure high quality and reduce metal consumption.

To ensure the development of microelectronic components and new technologies in electronics and electrical engineering, it is necessary to develop and ensure the production of special materials and semifinished products.

We must find a solution to ecological problems caused by the aluminium production in Ziar and Hronom.

### 3--Engineering and Electrical Engineering

The engineering and electrical engineering sectors will continue as the basis of development of the Czechoslovak economy. In engineering and electrical engineering the production is to increase 33-35 percent, together with a 30-32 percent increase in labor productivity.

To achieve these aims in the engineering and electrical engineering branches we must balance the capacities of final production and the facilities for producing assembly modules and materials. A rapid implementation of the results of technological advances and an extended service life and operational capacity of engineering products must become a significant factor in reducing the demand for raw and processed materials, fuels and energy. Through structural changes in individual sectors and replacement of obsolete products with products of higher levels of technology, we must achieve a substantially higher technological progress. We must achieve a higher product utility, its higher quality, as well as higher production volumes while reducing the consumption of construction materials and labor inputs. This principle must be intensively applied to increasing the production of high-quality production modules, which make it possible to achieve a high degree of capitalization in automated operations and technology management.

For the achievement of these important tasks it is imperative to accelerate developments in the electrical engineering industry, particularly microelectronics and automated equipment.

Personnel and material conditions for accelerated application of electronics and microelectronics in all sectors of national economy must be created.

The development of production in the engineering and electrical engineering industries must be ensured to supply, primarily, the demanding export tasks both as to quantity and the required product mix. We must strive for maximum integration in the international socialist division of labor. Close comprehensive cooperation must be effected between production and foreign trade organizations as must be the adaptability of our engineering production to foreign markets. A substantially closer linkage between production and foreign trade than heretofore must be ensured.

The fulfillment of demanding export tasks, and the enhanced effectiveness of exports, above all through the increase in per-kilogram prices and lower reproduction costs must become a joint effort of our production and foreign trade.

The responsibility of economic production units, enterprises and research institutes responsible for preparing production programs ensuring high-quality products for export and final assembly of the production lines must be enhanced. Production of spare parts and services as well as machine overhauls including industrial repair and maintenance must be assured. The innovation cycle and the time needed for implementing the results of research and development in production must be accelerated. The population's needs in engineering and electrical engineering consumer durables of higher quality and with expanded range of products must be satisfied to a greater extent.

The deliveries of machinery and equipment for capital construction must be oriented primarily toward covering the needs of unfinished projects from the sixth 5-year plan and priority project starts with planned completions during the seventh 5-year plan.

The developments in engineering and electrical engineering production must be primarily ensured by a better utilization rate of the existing capacities and production areas, and the labor growth must be oriented toward more shift work.

(a) In heavy engineering the export commitments ensuing from long-term trade agreements with the socialist states must be discharged and we must impact more successfully on the markets of nonsocialist countries, particularly through exports of turn-key complexes. The deliveries of equipment for the VVER 440-type nuclear power stations must be assured in keeping with the CSSR development program and the obligations incurred toward the CEMA countries. While maintaining high quality standards, we must improve the efficiency of production in this area and establish conditions for a conversion to producing the higher-performance VVER 1000-type nuclear power stations with minimum call on national resources.

In the production of technological operating equipment for coal mining and for thermal and hydroelectric power plants, we must increase the technical parameters and quality according to the needs of our domestic capital construction and exports. Maximum reliability of machinery and equipment and availability of spare parts for surface coal extraction equipment must be ensured.

Significant progress must be made in ensuring the reconstruction and machinery and equipment overhauls for strip mine coal extraction and for electric power units, including separating equipment for solid flue dust using units and sets of high technical standards, reliability, and operational effectiveness.

The production of systems for the automated control of rolling mills must be developed and the technical and organizational basis for intensive development of this new sector must be expanded.

In following up on changes in propulsion sources, we must prepare a complex of changes in the structure of engineering production to be able to convert, after 1985, to the most modern types of electrified transportats, both in railroad and city conveyances, and to satisfy the foreign market demands.



We must realize the programs of centralizing and concentrating the production of transmission equipment and gradually balance the disproportions between their sources and requirements. The needs for industrial fittings, pumps, pneumatic technology and equipment for water and irrigation purification and treatment must be satisfied better than heretofore to reduce the need for their import.

The deliveries of chemical equipment for developing the domestic chemical and pharmaceutical industries must be increased. The production of this equipment must also be expanded in other engineering facilities to establish conditions for increasing the deliveries of this equipment after 1985.

We must also significantly reinforce the role of the higher contractors in production and exports of turn-key complexes.

(b) The development of general engineering must be oriented toward a more clear-cut solution to the Czechoslovak export need side with an increase in the value of the products. Domestic needs must also be satisfied through deliveries of advanced technology for capital investments and innovations in consumer durables.

We must also ensure the realization of state goal-oriented programs and the necessary structural changes. We must increasingly orient ourselves toward developing advanced technologies and pushing the key component and technology specialization areas. Furthermore, we must enhance the exportability of our products by raising the technological and economic parameters and expand the range of products for export.

In the key sectors we must primarily solve these problems:

In machine tools and forming machines, we must increase the share of production of automated and automatic machines and machine systems and develop the production of one-purpose machines and automated production lines on a larger scale. We must make greater use of electronic components and rapidly master the production of CNC machine tools and forming machines based on microprocessors. On a priority basis, we must develop the production of machinery and equipment for two-dimensional forming and advanced three-dimensional forming robots. We must ensure the development of the production of industrial robots and handling machines and equipment for interoperational handling and we must expand the production of hard-to-obtain selections of instruments, tools and measuring equipment.

In textile engineering we must ensure the production of a new generation of spindleless spinning machines with higher take-up speeds and further develop and master the production of "multished" weaving technology.

While stepping up the technological parameters of tanning machinery, we must ensure the production of the automated flow of preliminary treatment systems with the aim of reducing material and labor inputs.

In shoemaking machinery we must orient ourselves toward researching, developing and producing machines for spraying of plastic materials, as well as programmed machinery for material separation, machines for two-phase and automatic stretching, automated gluing machines and high performance industrial sewing machines.

The structure of machine production for the printing industry must be oriented toward numerical offset machines and paper cutters with microprocessor numerical controls.

We must double the current production volume of the hydraulic set components and their technical standards, reliability and service life must be significantly increased.

In agricultural engineering, production must be substantially increased. The production of high performance machines must be assured, especially loading and unloading, soil preparation, sowing, fodder cultivation including those for harvesting in the foothills, the root crops, fruits and vegetables and specialized forestry tractors. For this purpose we must take advantage of other engineering plants and an expedient cooperation with non-engineering sectors.

A speedier transition to the [production of] IIIrd and gradually IVth standardized tractor series must be ensured. The technological standards of tractors must be improved and the production of tractor attachments expanded. The production of spare parts must be noticeably increased and their quality and range improved to ensure complete operations and repairs.

In the production of road-building and construction machinery, we must find the best solutions to mechanizing the construction work and help achieve a substantially better acceptance of our products on the foreign markets.

In the auto industry we must give priority to developing the production of tatra trucks; increase the number of models and the production of trailers and semi-trailers and provide for the needs of the agriculture in this respect; and finally, to solve the concept of passenger auto production. In developing and assembling new types of combustion type engines every effort must be made at reducing their consumption of fuels.

For final assembly of motor vehicles and their maintenance we must accelerate production of accessories and take advantage of advanced electronic elements. We must resolve the protracted problem of shortages of spare parts.

In the production of consumer goods, we must supply the public needs. We must overcome the shortages of certain products and, based on expanded innovation of products, achieve a greater satisfaction of the consumers' growing demands. We must ensure improved technological standards, above all in the areas of energy conservation, and a higher utilization of electronics and standardized parts.

(c) In the electrical engineering industry, we must speed up the development of production capacities with the optimum use of the research-development potential and closer cooperation with the socialist countries. By increasing production by 45-50 percent, we must create conditions for the electronization of our national economy. Primarily through developments in electronics and, particularly, micro-electronics, we must systematically increase the utility value of the products and technologies in the key sectors and areas of national economy and thus improve labor productivity and reduce consumption of energy and materials. A significant task of the electrical engineering industry is to create conditions for increasing

the exportability of our engineering and other products and to make them less import intensive. We must make a far greater use than heretofore of the international division of labor, particularly of cooperation within the framework of the socialist economic integration.

We must assure an almost threefold growth in the spare-part base of electrical engineering, electronics, optical electronics and particularly microelectronics. We must master and expand the production of bipolar and unipolar integrated circuits and microprocessors with the use of modern technological equipment, including electronic lithography. We must create conditions for introducing automated control systems, especially in the field of machine tools and the forming and textile machinery.

In automation technology we must ensure the development of the production of sensors, scanners, self-actuating mechanisms, signal elements and heat-measuring instruments. We must develop the production of control, regulating, measuring and directing technologies for the nuclear power industry, metallurgy and chemistry.

We must develop basic electronics, measuring, testing, laboratory and health technologies. We must ensure the deliveries of modern computer systems with the necessary peripherals and software, particularly for controlling technological processes. The production of electronic computers and telecommunication technologies must be developed in coordination with the individual systems of the CEMA countries.

In high-voltage electrical engineering we must ensure deliveries for capital construction, particularly for nuclear and fuel-power generation programs and for production of modern drives for engineering.

For our domestic market we must expand the range of innovated consumer products in the electrical engineering sector with high technical-economic parameters, particularly in color television sets, tape recorders, record players, radio receivers and other products.

#### **1.-Chemical and Pharmaceutical Production**

Long-range developments in the chemical industry must be aimed at a substantially more efficient use of raw materials and energy sources through an accelerated increase in engineering- and technology-intensive products and a higher share of exports. Based on this and on the expansion of international division of labor and integration with CEMA countries, particularly the USSR to reduce their imports from nonsocialist countries. We must achieve a production and consumption structure that will substantially improve the relation of this sector to foreign trade with nonsocialist countries. By 1985 the total production volume of the chemical industry is to increase at least 12 percent.

The development of chemical production must be concentrated on the fields of qualified chemistry, particularly pure chemicals, organic dyes, polymer additives, medicine drugs, biofactors and coating materials. We must give priority to those production areas in which conditions exist for their own research-development base and a minimum dependance on raw material imports from nonsocialist countries.

Bearing in mind the increasingly high foreign currency costs of crude oil imports, we must implement a set of effective measures throughout our national economy for achieving maximum conservation in the consumption of heating oils, propulsion fuels and other crude oil products.

In connection with the long-range program for reducing the share of crude oil as a primary resource in the CSSR's fuel-energy balance, we must increase the share of the chemical processing of crude oil to 15 percent of its total, and initiate the construction of a cracking unit in Litvinov. In all national economy sectors we must develop, and carry out, conservation measures for oil-based chemicals and we must restrict their use only to high-value products. We must gradually finish completing the petrochemical production plants in the CSR and SSR, with the aim of achieving a higher utilization rate of the raw material base already built.

In the area of chemical fibres, we must concentrate on expanding the range of products and on raising their quality.

The quality and range of industrial fertilizers and agro-chemicals must be improved.

New facilities for producing mechanical rubber goods and hoses are to become operational, and the production of elastic conveyor belts must be further expanded. In the enterprises of our local economy we must significantly expand the retreading of truck and tractor tires in particular.

We must create favorable conditions for a dynamic development and innovation of the range of products in the pharmaceutical industry and increase its production about 37 percent. We must build new universal production units with a production profile of synthetic medical drugs and intermediate medical products. Domestic raw and processed material base of health products is to be expanded and cooperation and specialization within the CEMA states network in production of pharmaceutical raw materials, medical drugs and health materials intensified. We must balance the needs and resources for medical drugs in quality and structure corresponding to the requirements of the socialist health care and other areas of national economy. In the seventh 5-year plan we must create conditions for eliminating the negative balances in imports and exports.

#### 5--the Timber-Processing Industry

By making a more rational use of timber, including usable scrap and brush we must ensure a more than 25-percent growth in the timber-processing industry. For this purpose we must particularly make better use of the new facilities built during the fifth and sixth 5-year plans. At the same time we must increase the production of bleached pulp by more than 60 percent, chipboards 65-70 percent, and of fiberboards 15 percent including surface trims. We must essentially eliminate the imports of pulp and chipboards from nonsocialist countries, strengthen the exportability of the entire timber-processing industry and gradually replace the present exports of green wood by more labor-intensive products.

To ensure the exports effectiveness, we must ensure higher levels of wood-processing in the sawmills and an improved quality structure of the exported coniferous lumber. Through drying and palletizing, we must increase production and quality of furniture for domestic and foreign markets.



Efforts must be made to improve the utilization rate of completed pulp mills and modernized chipboard and fiberboard production lines. We must make fully operational the new pulp mills in Paskov--including a facility for producing fodder yeast--and in Ruzomberok.

#### 6--Light Industry

In the development of light industry we must especially concentrate on raising the products quality and technological standards, a more intensive innovation in the product mix and on expanding the market range of products with novelty and luxury products. Structural changes in the light industry product make-up should act to create a net hard currency balance for the sector by better utilization of our highly trained manpower resources and a reduction in the imported raw material content.

We must increase the light industry production by about 15 percent. The production of glass fibers and glass fabrics for the electronic industry and consumer fabrics is to experience the fastest expansion.

We must orient the developments in the glass industry, above all, toward expanding the production of intermediate goods for further production stages and strive to make them less energy intensive. In the production of glass, porcelain, fine ceramics and costume jewelry we must primarily devote our attention to the modernization of the production base to ensure increased use of domestic raw materials.

In the cotton industry we must increase the proportion of fine yarns; we must restructure the knitting, ready-to-wear and leather-processing industries toward top-of-the-line and luxury products. In the wool-processing industry we must give priority to the production of upholstery textiles and carpets as a meaningful industrial basis. We must be able to better supply the public demand for a wider choice of footwear and textile products.

#### 7--Construction Materials Industry

By further developing the construction materials industry, we want to supply the needs of the national economy as regards product mix and aim at achieving maximal savings in the consumption of fuels and energy. We must give priority to the less energy and metal intensive production of materials and goods with better insulation properties, thus continuing to conserve energy when the project is in use. The use of cement--as a highly fuel- and electric energy-intensive product--must be strictly controlled and rationally used. We must update the quality of cement the standards of consumption at all work sites.

By restructuring and modernizing plants manufacturing prefabricated silicates we want to achieve higher technological and economic operating rate of capital assets. We must introduce advanced production technologies and modern organization of production, an increase in completion and completeness of construction projects and elements for individual construction.

In all regions and districts we must provide smooth and flexible deliveries to the construction sector and to the public of necessary quantities and product mix

of building materials and substances with ever higher utility value. We must create conditions for high-quality construction, for the highest possible savings in the cost of materials and for advanced construction methods. Through a systematic use of construction material production base, reduce transport distances and markedly limit returns of materials.

## V. Development of the Agro-Food Complex

The task set by the 15th CPCZ Congress--to achieve a gradual self-sufficiency in grain production and further improvements in the overall self-sufficiency in food production--also remain the key tasks in the seventh 5-year plan. We must increasingly concentrate on obtaining food from local sources by improving the efficiency of agricultural production and the processing methods. Accomplishing these demanding goals requires that, together with intensive utilization of the internal reserves of the agro-food complex, the participation of the rest of the production sectors in assuring our food production.

1. In agricultural production, we must continue with the intensification of the individual production sectors with priority to increases in plant cultivation. We must make better selection of agricultural production sites for optimal utilization of natural conditions and accelerate the specialization and product centralization. We must further increase the responsibility in management of agriculture and agricultural enterprises, specialized services and production supplies and increase the participation of the scientific-research base in implementing these tasks.

In all agricultural enterprises we must accelerate the exploitation of the research and development results, consistently introduce into operations the test findings and make use of the actual experiences of leading agricultural enterprises. We must improve planning and intraenterprise organization and implement the khozraschet [cost accounting system] more efficiently. We must conclude the work on and implement the improved system of planning and management in agriculture. Thus we can achieve more effective planning methods, sector management and enterprise and individual economic incentives.

In the seventh 5-year plan we are to increase agricultural production by about 10 percent over the sixth 5-year plan with a plant production increase of 14-16 percent.

In plant production we must achieve a better use of the land resources, improve conservation and systematically increase the crop yield; strive for increased, consistent yields of all staples; improve the standard of fertilization and plant protection and systematically reduce losses in production processes and in the consumption of the product.

We must ensure an average annual grains harvest of 11 million tons and thus achieve, in the course of the 5-year plan, about a 9 percent overall increase over the sixth 5-year plan we must take steps to produce more corn and implement strict controls in handling of grain resources.

We must accelerate the production of bulk fodder and, ensure a 13-14 percent increase over the sixth 5-year plan. Moreover, we must secure enough quality fodder crop

needs, especially for perennial crops, and high-performance harvesting equipment-- particularly that designed for work on slopes. We must devote more effort to proper processing and storage of fodder crops and a less expensive storage process. Utilizing the findings of scientifically controlled cattle feeding, we must achieve a 10-15 percent more efficient utilization of the fodder produced.

We must increase the production and procurement of fruit, vegetables and potatoes and increase the volume of direct deliveries to domestic markets. We must more actively support the production of small-scale growers for their own needs as well as for the market.

To ensure the raw material base the processing industry and improve foreign trade relations we must achieve continued growth in and better quality of plants for industrial processing. We must increase the production and procurement of oleaginous crops by more than half compared with the sixth 5-year plan. As regards sugar beets, we must overcome a production stagnation and improve its sugar content. Moreover, we must implement a number of effective measures and increase production by 12-15 percent over the sixth 5-year plan. We must increase the hops production by a fifth.

We must develop the animal production structure to conform to the actual fodder resources and increase production mainly from developing cattle raising while increasing utility of the animals. Fodder-intensive production should be developed only if an adequate supply can be assured. To reduce grain fodder consumption we must produce quality fodder product mix. We must support the adopted protein program, gradually implement the biochemization program of animal production and expand fresh water fish production.

We must ensure the right economic conditions for further developments in raising domestic animals on private plots and by small-time breeders with the aim of boosting self-sufficiency and contractual fattening and thus deliveries that will complement and provide more variety for the market.

2. We must increase the food industry production 10-11 percent and deliveries to the market by about 12 percent by 1985. In all sectors we must ensure a high degree of valorization of raw materials, including waste, and by products. We must stress improving the quality and innovation of products, durability and nutritional value of foodstuffs, their enrichment with vitamins and other trace elements. Baby and children's food must be of better quality and greater variety. We must gradually reduce the consumption of sugar in production and introduce new dietetic products. We must further integration and cooperation between processing industry, agriculture and trade.

3. In the development of the raw material-capital asset base of the agro-food complex, we must also ensure, in addition to the increase in deliveries, a steady increase in technological standards. We must increase the deliveries of industrial fertilizers by 8-10 percent and the deliveries of calcium materials and preventive chemical and biochemical products for plant and animal production. Farm fertilizers must be used more effectively.

In investments we can expect roughly the same amount as in the sixth 5-year plan. We must intensify building of irrigation and drainage systems. We must create

conditions for intensification of agricultural production in the East Slovak lowlands. In plant production we must concentrate the investments on reducing losses from harvest, storage and processing of agricultural products. In animal production we must use the resources primarily on building facilities for cattle raising. In the food industry, priority will be given to investment ensuring effective valorization of raw materials and the growth of sectors that improve foodstuff quality including refrigeration and freezer capacities and create corresponding conditions in deliveries of technological complexes.

To increase the capitilization of labor in agriculture in the seventh 5-year plan, we will have to deliver 10,000 special-purpose trucks, 6,500 loaders and 35,000 tractors and increase deliveries of equipment for basic land tilling and sowing and feed crop harvests. We will secure the sector's other needs, particularly in spare parts and packaging materials and develop and improve agricultural production services.

The resources spent on the development of the agro-food complex must be utilized with utmost efficiency. Investments in particular, must be used more effectively; the machinery and equipment operating rates and their maintenance must be improved; fertilizers, agrochemicals, fodder and fuels must be used more efficiently.

#### VI. Forestry and Water Management

In forestry we must ensure conditions for further expansion of the forest potential in all its functions; timber deliveries alone will be 87 million cubic meters. In cooperation with the processing industry we must increase the uses of the wood mass. We must accelerate gross production methods of forest cultivation. We must expand the care for young forests and increase their resistance to natural calamities.

We must systematically protect the forests, especially from the effects of industrial pollution. We must eradicate the results of pollution damages and ensure an economical utilization of the damaged timber and the reforestation of the depleted areas.

Within the limits of the forest reproduction potential, we must ensure timber production of about 92 million cubic meters of wood.

In the area of water management, we must ensure water necessary for supplying the population, agriculture, and industry by developing surface and underground sources. We must establish flood controls on exposed waterways especially in South Moravia and on the rivers Odra, Hron, Ipla, and Slana. According to the agreement and in cooperation with the Hungarian People's Republic, we must continue the construction of water projects on the Danube. We must continue the construction of water management projects in the North Bohemian brown coal basin and build water management projects related to developments of the fuel-energy base.

We must expand the water main and sewage systems, increase the number of people supplied with water from public water mains and connected to sewers. By improving maintenance, we must reduce losses in the water main and enforce rational use of water.



By constructing waste water treatment plants we must give priority to elimination of the greatest source of pollution.

## VII. Construction

We must systematically orient construction developments toward the completion of projects, shortening construction work target dates and commissioning them on schedule while considerably improving quality and quantity of construction. Project completion and final delivery must be considered to be the basic goals in construction and to this goal we must subordinate the management system from the ministry down to the work site. We must gradually deal with the fragmentation of capacities and systematically control the number of newly-started projects. We must also orient the construction technology toward an efficient utilization of domestic raw materials.

We must orient the restructuring of construction capacities and the deepening of cooperation within the framework of the regional distribution of capital investment and project completion, especially in the fuel-energy base and public construction, the responsibilities of the construction organizations for availability of social services and public utilities.

We must concentrate the construction capacities on key projects and on areas of concentrated capital investment of the CSSR capital Prague, the North Bohemian region and the capital of SSR Bratislava.

We must increase exports of construction work and disregard any imports in this area.

We must systematically improve the standards of management, organizational, and control work at all levels of management. We must reduce down-times, use strict criteria in material management and improve capacity utilization rates of plant and equipment.

We must increase the performance of the construction sector in summer months and create conditions for efficient work in the winter months. We must tighten the evaluation criteria in all subdivisions participating in the project.

We must orient the technological developments in construction toward saving manpower and taking advantage of advanced construction methods. Consumption of crude oil-based products, steel constructions and all types of metals must be cut back. Energy and fuel consumption in construction and later in the operation of the project must be reduced. Prefabrication and standardization of component parts must be stressed.

## VIII. Transportation and Communications

We must regard the need for fast, smooth, efficient and quality in our national economic and public transportation as the main task of the transportation system. We can expect a 7-9 percent increase in the transportation of goods, with emphasis on railroad transportation. We must improve the quality of passenger transportation, especially timeliness and the service standards.

We must reduce production sector transportation requirements by at least 5 percent--above all through rationalization measures taken by consignees, who must make their products less material-intensive, eliminate ineffectual cooperation and specialization and wasteful return transportation of goods, and speeding up loading and unloading procedures. We must create technological and organizational conditions in the enterprise unloading and handling capacities, use better holding areas and reduce rail car damage. Transportation requirements must be scheduled more evenly and the organization of transportation and its planning improved.

We must speed up the development of advanced transportation systems, especially container transportation and palletization and on this basis improve collection services with gradual establishment of appropriate conditions for freight forwarders and shippers.

We must reduce transportation fuel consumption and systematically orient the division of labor in transportation toward less energy-intensive types of transportation, that is, toward water and rail transportation.

We must give priority to developing railroad transportation as the key link in the transportation system; above all, the railroad is to be used in transportation of solid fuels, ores, metal scrap and goods for export. We must ensure that the share of rail transportation in the overall services comes to at least 70 percent by 1985. At the same time, we must give priority to developing railroad electrification.

We must increase the capacity of the most frequented lines and key railroad junctions and border crossing points by gradually automating technological processes and eliminating bottlenecks. We must expand electrification and safety equipment and make operational at least 450 kilometers of new lines and 380 kilometers of safety equipment.

We must improve the mechanical condition of the railroads by increasing the frequency and quality of maintenance and repair work and create conditions for a full utilization rate of the rail transportation's repair base.

We must build a new, standard-gauge railroad junction between the CSSR and the USSR and continue the construction of the southern rail line in Slovakia.

In road vehicle transportation, we must increase the freight volume by 8-10 percent. We must give priority to CSAD's [Czechoslovak Automobile Transportation] public transportation system and increase its share in the overall road freight shipment volume by at least 55 percent. We must increase the vehicle utilization rate and implement rationalization measures in the organization, management and planning. We must streamline the enterprise transportation system through better planning and centralization of the vehicles and repair facilities into larger units.

We must reduce the fuel consumption by at least 13 percent by better vehicle utilization rate by improving their mechanical condition and by an increased use of trailers and semitrailers.

In water transportation, we must increase the volume of goods moved by about 35-40 percent while giving priority to international transportation, modernizing and better utilization of loading and reloading techniques.

In air transport we must implement an overall rationalization program, make the operation considerably more economical and achieve savings in the fuel consumption and continue to expand chemical air services to agriculture.

We must concentrate resources in road construction on the most important sectors with priorities to the most frequented communications and to solving the traffic congestion in Prague and Bratislava. We must gradually eliminate defective traffic spots and systematically coordinate the construction of highways and expressways.

In city mass transit we must modernize its technological base, give priority to electrification and ensure deliveries of needed cars. The subway construction is to proceed.

In signal communications we must concentrate our efforts on improving services to the public and the socialist organizations. We must improve their flexibility by modernizing the telecommunications, radio communications and postal services, improving maintenance and speeding up repairs of communications equipment and systems.

In telecommunications we must continue automating the long distance telephone services, improve and gradually expand the reception of the second television channel.

In postal services we must continue the automation and mechanization of operations processes, especially in the postal and transportation centers.

#### **IX. External Economic Relations**

The continued successful development of the Czechoslovak economy and its growth is contingent on a highly active participation by CSSR in the international division of labor, particularly within the socialist economic integration. We must regard a consistent improvement in the effectiveness of our foreign trade and exportability of our product as a basic task of all levels of management. We must achieve a significantly faster increase in our exports than in our imports.

We must react faster to the developments on the world markets. Improve the export structure and the technological standards and quality of export products we must increase the share of labor intensive products and those involving considerable amount of skilled work. On this basis and through improvement in trade dealings we must achieve higher export prices. We must substantially improve the technical and maintenance services and exercise stringent controls over quality of products and spare part deliveries.

Funds allocated to imports for production consumption must be used rationally. Only high technology machines and equipment and goods necessary for enrichment of the domestic market should be imported.

We must continue to regard the comprehensive economic and scientific-technical cooperation with the socialist countries, above all with the Soviet Union, as the foundation of continued development of domestic and foreign economic relations.

In relations with the socialist countries we must create conditions for increasing the turnover in mutual goods exchange in the seventh 5-year plan by more than 25 percent (measured by volume).

We must ensure a more intensive integration of our economy into the international socialist division of work and actively participate in realizing the integration programs within the CEMA framework.

We must make use of production cooperation and specialization to strengthen export capability and reduce the dependence on imports from the capitalist states. We must regard the systematic fulfillment of the long-term CSSR-USSR program of specialization and cooperation as a priority obligation.

We must scrupulously fulfill our obligations arising from multilateral integration measures, from the coordination of the national economic plans with the CEMA countries as well as from long-term trade contracts.

We must expand direct relations between ministries, economic-production units, and CSSR enterprises and partner organizations of the CEMA member countries and increase responsibility of the economic agencies for fulfillment of contractual obligations.

On the basis of peaceful coexistence with states having different social systems we must continue to develop scientific-technical and economic cooperation with the nonsocialist states. Based on mutual benefits, we must follow the long-term goals dictated by the needs of the CSSR and the socialist community. We must take advantage of higher forms of cooperation, production and research and development cooperation, to strengthen these relations for the long range effect.

In relations with the developing countries we must continue to expand all-round cooperation which will enable both sides to reap greater benefits from the international division of labor and aid in growth of production forces of these countries.

In relations with the advanced capitalist states, we must create conditions for improving the structure of the goods exchange, above all by expanding the share of machinery and equipment in our exports. We must limit imports to purchasing necessary raw and processed materials and state-of-the-art machines with rapid return on the invested foreign currency. We must avoid any undesirable countertrade.

We must continue our active participation in helping solve significant economic problems in the framework of international organizations.

We must improve effectiveness and increase the standards of management of foreign economic relations. We must improve external trade activities and intensify the cooperation of production and foreign trade organizations. We must increase the responsibility of central agencies and foreign trade organizations for export-import coordination and consistently implement in practice the import-marketing genre [centralized coordination management]. The production organizations must be better informed about the situation and world market developments.



## **X. Capital Investment**

The conditions and requirements of the future economic developments dictate that the capital investment program in 1981-85 be used only to solve the most urgent needs with maximum economy of the funds.

The possibilities of the uses of national income do not allow for increases in the annual volume of investments in the course of the seventh 5-year plan.

Capital investment must be used primarily on projects aimed at increasing exports and reducing imports, fulfillment of goals of improving fuels and energy consumption and necessary development of their sources and increasing self-sufficiency in foods consumption. Give priority to modernization actions enabling higher capacity utilization rates and better use of research and developments results and savings in labor, raw materials and metals in particular.

Main emphasis must go to better utilization of the existing capacities, on increasing the effectiveness of the investments and on implementing the results of research and development. We must achieve a reversal in the manner of fixed asset reproduction; improve the ratio of investments for renovation and modernization vis-a-vis the investments for development, give them priority and economic support; consistently ensure a balance between the replacement of fixed assets and labor and create conditions for their use in multiple shift operations.

We must concentrate the labor and deliveries on a speedy completion of unfinished projects and making production capacities operational according to plans. We must systematically reduce excessive construction in progress and thus significantly reduce the number of projects simultaneously under construction. We must substantially limit start-up of new projects and create conditions for shortening construction deadlines.

We can consider construction of new capacities and expansion of the existing enterprises only if the needs of the national economy for a certain product cannot be assured by better capital asset utilization rates or their reconstruction or modernization.

We must improve the construction investors' and designers' state of preparation. In the projects, we must enforce high technological-economic standards according to the future production requirements. We must demand higher quality and economy of architectural and urban project solutions, particularly housing complexes. We must increase the number of standardized and prefabricated projects and accelerate and make more economical the design preparation as well as the execution. We must not allow excesses in construction and budgeting of production and nonproduction buildings and limit the growth of their investment costs. The responsibility of suppliers in adapting the structure of construction work and deliveries to requirements and needs for efficient investment construction within their territories must be increased. Advanced assembly and construction methods must be used with the help of highest forms of delivery.

The responsibility and motivation of all participants for capital construction must lie primarily in timely completion and start-up of problem free operations.

We must raise the efficiency of the reproduction process, particularly through a better capital utilization rate gradually eliminate obsolete and worn plant and equipment. In all industrial branches, we must gradually reduce the number of vacant spaces and relieve workers for multi-shift employment of the most advanced equipment and technology. Action Z [self-help community projects] must be limited to programs which the citizens can essentially accomplish in self-help action.

#### **XI. Population's Standard of Living**

The realization of the key objective of the party's economic and social policy as regards the standard of living of the population must be consistently linked to the results which will be achieved through the growth of production and increases in labor productivity. Consequently, we must support the development of people's creative potential, their social commitment and high-degree of work responsibility and thus contribute to building a socialist way of life. We must enforce advanced changes in the character of work and create the necessary conditions for a better work discipline and work process rhythm. As regards the orientation and the forms of the development of the standard of living, we must put emphasis on its positive effect in developing production potential and deepening the harmony of group and individual interests. To achieve this, we must:

--increase the significance of pay according to quantity and quality and social significance of work as the basic principle of the distribution in a socialist society; at the same time to ensure a corresponding living standard for people who are unable to participate in the working process;

--satisfy the public consumption, particularly by improving its structure; thus ensure increasing effectiveness of the incentives for the development of labor initiative, labor productivity and consolidation of the socialist way of life; enrich the supply particularly of better quality and state-of-the-art industrial products and raise the quality and flexibility of paid services;

--in accord with all-social interests, influence more actively changes in the structure of supply and demand while ensuring the necessary balance between the price, wage and social policy; strengthen the state management of retail prices and intensify price controls;

--while maintaining the existing scope of services rendered free of charge, to improve further the progressive system of health and social care, school and educational system and the care for development of culture and physical education, while stressing thrift in social fund expenditures and making a more efficient use of manpower;

--seek improvement of the living and working environment; to focus, in particular, on the coal mining districts of the North Bohemia region, the Sokolov district, the Ostrava area and other selected industrial locations;

--continue to improve housing conditions and further develop the retail network, and paid and public services.

## 1. Remuneration for Work

A proportionate growth of average wages must be reckoned with as an important and effective means of work motivation and labor productivity. In the pay system it is necessary to assert the work merit principle and to achieve that the position of each organization and individual fully depends on their performance.

In order to enhance the economic effectiveness of socially and economically justified wage development it is necessary:

- to strengthen the dependence of wage fund formation on the growth of labor productivity and the overall economic performance;

- to reinforce the effects of technological levels and product quality on the product exportability and overall standard of wage fund distribution;

- to increase organizations' and individuals' responsibility in satisfying the needs of the public to make the formation and distribution of the wage funds contingent on adherence to the planned structure and quality of production and services through practical fulfillment of the priority tasks of the plan.

Increased attention must be devoted to providing economic incentives for saving in active labor. This is to enable them to adopt higher goals for improvements in labor productivity, especially through absolute reductions in needed manpower, which may proportionately increase the wages of those employees who deserve it.

Support must be given to creative, highly productive and qualified labor. Employees who most contribute to increasing the product utility value as well as its technical and economic parameters must be shown greater appreciation in terms of praise and economic incentives. The wage incentives, premiums and bonuses must be supportive of key tasks of research and development and product innovation, and toward saving in active and past labor inputs.

Piece-work wages and contract work must be introduced on a broader scale. Standards for use of labor must be constantly improved and expanded even into the nonproduction areas. These standards must be used as an important instrument of intraenterprise management and a reliable criterion of remuneration. The system of remuneration is to reinforce work stability, long-term high performance and work initiative. A strict production and wage discipline must be enforced. The personal responsibility of management for fulfillment of assigned tasks must be increased. The compliance with wage policy must be strictly, consistently, and effectively controlled by all levels of management.

## 2. Consumption

The development of consumption at retail levels of the domestic market must be considered as the key factor in the measurement of the standard of living.

As regards the structure of retail trade turnover, it is essential to ensure qualitative changes by achieving a faster rate of growth in sales of industrial goods than in sales of foodstuffs. Deliveries of goods in short supply must be increased. In particular, the consumption of durables, and products related

to their use must be expanded. In ensuring the needed quantity of products for everyday use, it is also necessary to increase the share of top quality and top-of-the-line goods. More significant progress must be made in providing the socially desirable mix and innovations in the lines of product especially as regards engineering goods. Furthermore, it is necessary to supply a wider range of goods enabling a higher standard of living especially in housing, facilitating household work and supporting an active use of leisure time and the development of hobbies. Goods should become available in all price categories satisfying the demands of fashion, variety, high quality, aesthetic and utility value and easy care or maintenance. Special attention must be paid to availability of nondurables and goods of everyday use and to expanding the product mix.

The existing high standard of food consumption must be maintained while expanding the production and sales of industrially prepared foodstuffs for direct consumption by the households; the share of better quality products is to be increased and the variety of foodstuffs expanded; catering in restaurants and enterprise and school canteens is to be made more efficient. Purchasing of agricultural products from small growers is to be expanded to enrich the domestic markets.

The production sector must become more responsive to changes in domestic market and wholesale deliveries to retail made more efficient in reducing inventories. The market survey and commercial trade must be significantly improved. Wholesale activities must be streamlined. The trade raw material-capital asset base must be further developed, focusing on specialization of the retail network. Services to customers must be improved for shopping ease and more convenient shopping hours established. The rural cooperative trade and hospitality must further be improved.

The development of paid services must conform to changes in life style, according to availability of household appliances and improving living standards. Services to improving housing conditions must be given a priority. It is essential to increase the quality of building repairs and maintenance, to ensure modernization of apartments by public self-help and ensure deliveries for the construction and maintenance of family housing units. The quality and promptness of repairs of durables must be improved, especially as regards electrical and electronic appliances and passenger automobiles, including maintenance and retreading of tires. As far as laundries and drycleaning establishments and repair shops for items of everyday use are concerned, it is essential to reduce terms of deliveries and improve the quality of their work. Services for households must also be expanded. Furthermore, public especially municipal transportation, cultural and recreation requirements are to be improved. The growing need for trade services must be satisfied by developing small national committee shops.

Public services in local economy and production cooperatives are to be expanded by 13-15 percent. Serviceable and desirable additional production satisfying the needs of the domestic market, especially for increasing selection of goods offered, must be further developed. Greater care must go into the technological standards of these consumer goods. A more rapid expansion in services directly satisfying the population's needs is to be given increased support. The network of services offered by the local economy and production cooperatives in housing developments with larger concentrations must be expanded and mobile collection units for rural areas gradually developed. In paid services, greater attention must be paid to the customers' needs by adjusting the hours of operations to make them more convenient.



It is necessary to create conditions for further development of tourism, and to make better and more effective use of available hospitality, catering, spa and other accommodations to that purpose.

### 3. Care for the Workers, Families With Children and Elderly Citizens

The enterprise improvements of working conditions, work environment and labor safety must be increased with the participation of trade union organizations. The number of accident-prone work shops, the share of hard and exhausting jobs and of activities under especially difficult working conditions must be reduced--especially as regards women and youth. Hygienic health measures including better equipment and handling of work safety equipment must be improved. Efforts are to be made to upgrade employee qualifications and make sure they are fully utilized. Care must be taken to upgrade the employee work and social activity and to consolidate comradely relations at the workplaces.

Cultural and social services funds must be used on a priority basis for purposes and actions in which the majority of the employees participate, such as political-indoctrination and educational activity, enterprise catering services, stabilization of personnel, and a purposeful utilization of leisure time for the employee's recreation. These resources must also be used to reward more distinctly those employees who take an active part and take initiative in the fulfillment of the planned tasks and who work on the second and third shifts. Care for the work collectives' social development must be regulated in a systematic manner of cadre preparation plan, personnel and social development and collective contracts. More intensive support must be given to purposeful combining of enterprises' and national committee's resources.

As regards welfare assistance to families with children and payments to elderly, disabled and ill citizens, we must tie it into the established, broadly developed social services system and continue to strengthen and improve it in accordance with our economic possibilities.

The objective is to achieve that some 22 percent of all children up to 3 years of age are placed in nurseries, that kindergartens take care of 88-90 percent of all children in the 3-5 year age group, and that the number of children receiving meals in school canteens is further increased, to about 2.5 million. The number of places for old age retirees and disabled persons in social care facilities run by national committees is to be increased by at least 7,000.

We must develop social services that have already proved their worth, such as nursing services, improve the rehabilitation of citizens with impaired health and especially improve prosthetic services. We must also ensure possibilities for retired people's participation in social activities and hobbies but also in the work process. Furthermore, we must develop the public indoctrination in correct perception of the meaning and role of a socialist family, and instill in them an attentive and sensitive attitude toward children and elderly citizens.

### 4. Housing

It is necessary to make comprehensive improvements in public housing, to create essential technical-economic and material and adequate capacity conditions for

better management of the available housing and for reducing the energy and capital requirements in new housing construction. In the 1981-1985 period we expect to complete 550,000 new apartments, and to modernize, within the framework of comprehensive housing construction, 40,000-50,000 apartments in socialist ownership; to give support to the modernization of apartments by self-help; to place emphasis on regular, good quality maintenance and repairs of the existing housing; and to reduce more significantly the heretofore excessive loss of apartments due to decay.

It is necessary to contribute through housing construction to a more effective distribution of labor, and its stabilization; continue to develop public participation in construction through housing cooperatives including those formed in the enterprises. To continue to support the construction of apartments in family houses, especially through employment of advanced construction methods; to direct their construction to large industrial and rural population centers.

It is necessary to ensure more consistently that newly built housing developments are equipped with public utilities and facilities such as shops, schools, health and cultural facilities, roads, and energy and to raise the quality and ensure a timely completion of work in building apartments.

It is necessary to contribute, by developing public services, to environmental protection in cities and in the countryside; to devote particular attention to the cleanliness of cities, and to removal and more effective use of household trash; to improve road conditions in cities and to expand public parks; and to orient election campaigns and voluntary help activities, including Action Z [voluntary self help program] toward city and village developments.

## 3. Health Care, Education and Culture

In the broadly developed system of health care, it is necessary to work on improvements in the public health services while emphasis on prevention; to strengthen hygienic discipline in all productive and nonproductive organizations; to increase standards and effectiveness of outpatient services, expand rehabilitation services and gradually implement national health programs and shorten appointment and waiting periods for examination and medical care.

We must improve health organization and management, especially by stricter professionalism and uniform management from the Health Ministry through national committees down to the national health institutes.

It is necessary to streamline the medical institutions network in the interest of making more effective use of resources, material and capital base and personnel. Integration of medical and economic-technical activities in optimal, hierarchically arranged entities is essential to improve the actual ambulatory and hospital medical care.

It is necessary to expand the number of beds in medical facilities and spas by 1,000-2,000, and the number of positions for physicians by 4,000-5,000 and to expand, on a priority basis, the number of beds for elderly and chronically ill persons. Supplies of medication and other health care materials must be assured.

Unfinished action must be rapidly concluded. Continuous maintenance and modernization of health care facilities must be ensured. It is necessary to see to the physicians' and other medical personnel's steady professional and political growth so that their attitude toward the patients accord with socialist morals and ethics.

In the educational system it is necessary to create, according to the needs of an advanced socialist society and scientific-technical developments, conditions for further development and increase in the educational levels and qualifications of the youth and working people and devote special attention to intensifying the system of education toward a scientific weltanschauung, proletarian internationalism and socialist patriotism. For this reason we must increase the cooperation of the schools with the SSM (Socialist Youth Association) and with other socialist organizations.

It is necessary to ensure further progress in implementing the Czechoslovak educational system, while creating the necessary conditions for educating the now larger groups who have come of school age, especially in elementary and secondary schools; to complete in 1983-1984 [school year] the introduction of the new concept of elementary schools and gradually implement the restructuring of the secondary schools' thematic orientation.

In the sectors concerned and in kraj national committees to devote special attention to restructuring and reorganizing the vocational educational system, along with establishing a network of secondary school-level vocational schools as the basis for the education of a new working class generation.

It is necessary to subordinate the development of the fields of study and vocational training to long-term social needs, thus developing on a priority basis technical fields of study, skills and trades ensuring the training of qualified workers for the key national economic sectors.

It is necessary to adapt effectively the extent and structure of higher education, as well as the content and forms of studies, to research and development and the long-term needs of the economy, and to give priority to engineering studies. We must improve conditions for research and development activities at institutes of higher learning and increase its effectiveness.

It is necessary to ensure education and indoctrination by providing adequate personnel and material support as well as effective organization measures aimed at achieving a more efficient use of educational system personnel. In developing the educational system's material and technical base, it is necessary to focus mainly on low cost forms of adding capacity for instruction, indoctrination, and training through modernization, expansion and remodelling of existing facilities.

As regards the general development of socialist culture and arts, it is necessary to ensure their broadest possible assimilation by the masses, as one of the prerequisites for further development of the socialist society; this process is to be supported in all areas by means of a general development of aesthetic education--from artistic-creative and cultural-educational activity down to the work culture, education of socialist ethics, and the shaping of a socialist way of life. Pay special attention to the development of arts expressing the basic issues of the present era.

As far as the material base of the culture is concerned it is necessary to create while systematically taking advantage of existing facilities and in keeping with the possibilities of the developments of society, basic conditions from national resources as well as from resources of economic, cooperative and social organizations for the fulfillment of significant socialist functions of the culture while paying special attention to raising the effectiveness of mass information media.

Further it is necessary to improve conditions for a mass development of physical education, sports, tourism and public recreation especially for young people and to train new instructors, trainers and organizers. We must make better use of the existing facilities of social organizations, enterprises, schools, and national committees. It is necessary to further develop tourist facilities for a broad strata of the population and to support active hobbies for the public.

#### 6. Environmental Conditions

The care and improvement of the environmental conditions must be considered to be an important part of the public standard of living. We must make every effort to maintain the basic values of the natural environment and beauties of our country. We must take measures to improve the air quality and, in particular, reduce industrial pollution, maintain clean surface and underground water sources, and protect our agricultural land resources. We must intensify the measures for environmental protection and limit the negative influences of the production processes on the natural conditions mainly in the population centers with high levels of industrial or mining activities.

We must achieve a higher level of environmental conditions in the cities and in the countryside through purposeful and efficient use of invested capital. The environmental conditions in the industrial, construction, and agricultural enterprises must continue to be improved with active cooperation of the workers.

We must assure a consistent compliance with the established standards and directives for protection and improvement of the environmental conditions, systematically control and fight energetically against everything which might damage the environmental conditions.

#### A11. Improvement of Planned Management of National Economy

It is necessary to improve significantly the effectiveness of planning and management at all levels; to subordinate it consistently to implementing the basic strategy of the CPCZ economic policy aimed at bringing about marked intensification, efficiency and exportability in the CSSR economy. To implement consistently the resolutions of the CPCZ Central Committee Presidium and the CSSR Government for improving the planned management system of the national economy; and to master and assimilate the set of measures which have been developed.

Any attention at all levels of management must be devoted to improving planning in ensuring growth of effectiveness in our society and in final national economic results.



The effectiveness of planning must be ensured, in particular, by comprehensively mastering of the research and development and its practical application. Through a programmatic approach, regional planning is to be improved. The plans must express, at all levels of management, the contributions of the research and development and make them the fundamental criterion for setting up, controlling and evaluating the fulfillment of the plan, as well as providing economic incentive for managers, collectives and individuals.

It is necessary to solve comprehensively the problem of standards and rules governing consumption, inventory and capacity, performance standards and technical-economic indexes in capital investment; to ensure that all standards promptly reflect the latest results of research and development and the management standards in the best economic production units, enterprises and united cooperative farms so that they become not only an instrument of substantiating and achieving a balanced nature of the plan but also an advanced criterion of its formation.

A systematic implementation of the new measures in management of material resources; to strengthen the system of resource allocations; to further expand the imports marketing system of project coordination and raise the effectiveness of economic contracts as well as responsibility for maintaining discipline in supplier-consignee relations; to set up an integrated system of organizing, managing and coordinating resource flows in the national economy aimed at rationalization of supply and marketing, achieving an optimal distribution of inventories among suppliers and compliance with a high standard of resource management in the national economy and to streamline the national distribution system.

It is necessary to complete and implement measures for improving the planning and management of the investment process, and to make the investors, planners and suppliers accountable for its effectiveness; to simplify and improve directives governing relations among participants in the investment process and thereby contribute to improving the preparation and implementation of investments. As regards planning, financial management and the system of economic incentives, it is necessary to give a marked preference to the completion of construction projects, to a better use of existing assets and to their modernization and rebuilding.

It is necessary to pay attention to improving the system of management of national commodities in areas of domestic trade and services and the entire nonproduction sphere.

It is necessary to raise systematically the effectiveness of khozraschet methods in the formulation and implementation of the plan; to increase khozraschet responsibility of MVE and enterprises for results of their management with entrusted assets and for creation of conditions for continued effective development; to make a successful use of the khozraschet interdependence between the qualitative tasks of the plan and instruments of economic incentives to prepare higher draft plans, especially those proposing better, more economic utilization of materials and financial resources, reduction of cost of sales, and more efficient utilization rates of active labor, machinery, equipment and inventories.

We must pay particular attention to detailing and implementation of khozraschet methods in internal enterprise management, and consistently apply the merit

principle within the remuneration system, rewarding those who contribute to the fulfillment of specific tasks in raising effectiveness and quality, and penalizing poor quality, mismanagement and other undesirable phenomena in the economy. The economic incentives for management, collectives, and individuals must be tied primarily to indicators pointing to specific tasks in efficiency and quality.

It is necessary to make active use of credits and other financial instruments to bring about higher effectiveness and intensification of production in the plans, as well as in implementing the plans, and to achieve balance in currency, fiscal and budget matters.

It is necessary to ensure a more flexible system of wholesale pricing basing it on the actual development of the procurement costs of imports and domestic production costs while exerting systematic pressure for better and more efficient consumption of fuels, energy and raw materials.

It is necessary to improve price incentives for effective improvements of technological standards, quality and saleability of new products on the domestic and foreign markets.

Enforce the criteria governing premium pricing and discounting of products more strictly and systematically evaluate the achieved export prices on the basis of comparable products in the foreign markets.

It is necessary to improve the quality and effectiveness of organization and management and closely coordinate the development of the management organization and the structure of the national industrial technology base with the established material tasks of development and with the tasks of further improve planned management.

It is necessary to complete the comprehensive development programs concerning the management of sectors and economic production units, effectively defining their tasks and, accordingly, the managerial authority and responsibilities; strengthen their responsibility for decisionmaking and for ultimate results for our society. The methods and instruments of management are to enable the economic production unit to play the role of the basic management link in the enterprise economic sphere. It is necessary to eliminate the organizational fragmentation of the industrial technology and research base, and integrate smaller plants and enterprises in larger entities to support the development of production specialization and concentration and enable a more efficient utilization rate of plant and equipment and labor.

The disproportionate administrative costs in management must be systematically reduced, relations and work methods rationalized and the management methods and style improved. Administrative and management costs must be reduced.

The legal directives for the economy must be rationalized, particularly through a more consistent businesslike coordination.

The effectiveness of management must be enhanced by introducing organizational and computer technologies and automated management systems; extraordinary attention

must be devoted to developing an automated system of planned budgets that would establish conditions for improving the planning process at all management levels.

Control activity must be strengthened at all management levels. We must ensure that it is systematic and coordinated, so that we can concentrate on the major tasks at individual management levels. Control must be more consistently oriented to forestalling shortcomings, more economic handling of national resources and ensuring the tasks in the increase of efficiency and maintaining planning, financial, wage, price and foreign currency discipline. Specific conclusions must be adopted and their implementation followed up.

The worker participation in the planned management of the economy must be intensified. The political-organizational and indoctrination work must be developed and comprehensive conditions created for their participation in the formulation, realization, evaluation and control of the plan fulfillment. We must make sure that the tasks, qualitative criteria and rules for remuneration set down for the economy, production units and enterprises are developed down to the intra-enterprise subdivisions, work collectives and individuals; we must always use only those indicators which express best, and as intelligibly as possible, their specific contribution to fulfilling their organization's plan. On this basis we must develop counterplanning, aimed at surpassing the qualitative tasks of the state 5-year plan and at further improving the quality of production and services. For this we must develop a broad initiative of collectives and individuals, particularly that of comprehensive and rationalization brigades, socialist labor brigades, outstanding workers, technicians, economists, innovators and inventors. We must consistently and regularly check on and assess the plan fulfillment and the fulfillment of pledges adopted by the working collectives and, particularly, we must generalize the experiences acquired and progressive work methods.

The main trends of economic and social development in the CSSR in the years of the seventh 5-year plan formulate the tasks of further building the developed socialist society. That is why their successful fulfillment will demand a striking improvement of the management work of all state and economic agencies in ensuring the basic targets and tasks of the seventh 5-year plan, particularly in stressing consistently the need for raising the effectiveness and quality of all work, to establishing conditions for increased exportability and reducing the import needs of the Czechoslovak economy, to accelerate implementing the advanced results of research and development and to further intensify the socialist economic integration.

The demanding program of continued economic development demands that we ensure a uniform and purposeful course in solving key problems and the basic intent of our economic policy. We must achieve a high degree of activism and involvement of all communists who must set examples in fulfilling the set tasks.

The initiative and activity of the broadest possible working people's strata and the development of socialist competition must be oriented to ensure the set goals and tasks of economic development. A significant role is to be played by the national committees, the revolutionary trade union movement, the Socialist Youth Union, the Czechoslovak Research and Development Society and other national agencies, and organizations of the national front.

Successful fulfillment of the set tasks is imperative to ensure the continued growth of the Czechoslovak national economy and the comprehensive development of society and the consolidation of the entire world socialist system.

## 'RUDE PRAVO' INTERVIEWS WORKERS ON SET OF MEASURES EFFECTS

Prague RUDE PRAVO in Czech 27 Mar 81 . 3

[Interview by Jan Tihlarik and Miloslav Vitavsky with Ladislav Matejka, Secretary of the Government Committee for Questions on the Improvement of Planned Management, and several nonparty workers: "How Are You Managing and How Is Your Pay Coming Along?"; date and place not given]

[Text] January and February are behind us. The Set of Measures for Improving the System of Planned Management should have set down roots in all work areas during the first 2 months and by its rules begun to influence the conduct of hundreds of thousands of workers. It was supposed to motivate supervisory and managerial personnel to gradually create conditions for the workers collectives such that they could meet the more demanding objectives of the Seventh Five-Year Plan and particularly that they receive well-deserved pay for work well done.

Is this now the case everywhere? The Editors of RUDE PRAVO decided to invite several workers to chat with LADISLAV MATEJKA, Secretary of the Government Committee for Questions on the Improvement of Planned Management. Accepting were: VACLAV DANIEL, a setup man for the Elektrotechnicke zavody Julia Fucika [Julius Fucik Electrotechnical Works] Brno; MARIE DITTRICHOVA, an industrial butcher with the Stredocesky prumysl masny [Mid-Bohemian Meat Industry] in Uvaly u Prahy; VOJTECH JIROVEC, a foreman at the Tonaso--tovarna na sodu [Tonaso Soda Factory], Nestemice; JOSEF NALEPA, a chief fitter at the Hutni montaze [Metallurgical Assembly Plant], Ostrava; VLADISLAV ORNST, a quality-control employee for Desta, zavod Chlumec nad Cidlinou [Desta, the Chlumec nad Cidlinou Plant]; BOZENA RUZICKOVA, a facing-tile sorter in the Zapadoceske keramicke zavody [West Bohemian Ceramic Works], Horni Briza; PAVEL SEKYT, a heavy equipment operator with Konstruktiva Prague; and JARMILA ZADNICKOVA, a textile doubler with Sukno Humpolec.

[Question] Have the norms been objectivized where you work?

B. Ruzickova: We are beginning to introduce an economy movement called "one crown daily for each worker." For the present, there are not many of us; the movement is only now getting going and it is too soon to evaluate it. Our principal concern is



to conserve electrical energy when making the facing tiles. We are also attempting to lower the amount of planned waste. The competitors are achieving a savings in electrical energy by consistently turning off the motors and the presses. The lady operators service two presses and therefore such a measure makes sense. We have had self-regulation in our plant since the installation of electrical feeders. If a certain number of rejects is not found in subsequent departments, then the operator's bonus is increased.

J. Nalepa: The objectivization of norms was carried out in our plant as early as 1974, during the reorganization of the wage structure. This process continues with the development of new technology and the use of new work methods.

V. Jirovec: The objectivization of norms was also carried out in our enterprise the same year. It is the responsibility of each supervisor or foreman to report a change in the technical organizational conditions or in the of operation for new work to the division of work economy, which subsequently ascertains the actual state of affairs. In this way, one is assured that the norms are improved on an ongoing basis and that they are precisely defined and highly effective.

I. Kadnickova: Norms clarification was carried out in our plant in 1978 when we began the experiment. We are now installing new machines and therefore must repeat the clarification--a never-ending process.

V. Daniel: The objectivization of norms was carried out in our enterprise by the first of June last year. Neither that day nor that month saw the end of the affair, however, for work on it continues. For example, the work brigades introduce a certain improvement into production or suggest ways to shorten operations time. Then one must adapt the norms to the new conditions.

M. Dittrichova: When a new machine is introduced into our plant, it is accompanied by a statewide norm.

I. Matejka: To objectivize norms means to bring them into accordance with contemporary technical and organizational conditions or a given type of production. As soon as one achieves improvements in technical equipment or in the organization of the industrial process, one must shift the level of the norms so that they correspond to the new conditions. That is a prerequisite so that the new industrial equipment or the new methods of operation are also manifested in a growth in the social productivity of work. It must be said that a considerable portion of jobs has not yet been set to norm at all. During the first years of the five-year plan this portion was supposed to be reduced by a minimum of 15 percent and in subsequent years by 10 percent each year. This does not depend merely upon production but also upon administration and ancillary operations. It is important to bear in mind that without correct norms it is difficult to set fair compensation rates because one lacks a reliable gauge for measuring the output of individual employees. And where there is no such gauge, a leveling takes place, a point is reached at which the more productive worker is relatively worse paid than someone who is less productive.

[Question] Is quality being judged more stringently?

I. Nalepa: In our area, the criteria for judging quality are the same as those of last year. Our workers receive a 20 percent incentive pay based upon quality.

J. Zadnickova: In our Sukno plant we have already noticed that the Set of Measures is beginning to be enforced because considerably more stringent penalties are in effect. Nonetheless, we are earning about 50 haler more per hour because interest in quality has gone up thanks to the incentive system.

B. Ruzickova: In the Keramicka zavody, since last year we have been more motivated to monitor quality when sorting facing tiles. We now receive an additional bonus of 5 haler for each carton. When quality is really excellent and we cull the facing tiles the way we should, then our pay goes up; for instance, in 2 months I received an additional KCs 380. There are quite specific penalties for facing tiles that have been recalled, however, since the number of the sorter appears on each carton.

V. Daniel: In the galvanizing plant where I work, average earnings were higher because the percent of rejects went down and therefore the output of the whole center was increased. Each center has a precisely set admissible percent of rejects.

V. Jirovec: I work in cooking soda production and there for the present nothing has changed. The plant of course meets the quality indices very well and we have also been successful in nonsocialist markets. For the time being we receive no bonuses for exceeding our goals because the Set of Measures has not yet been elaborated for our situation.

L. Ornst: The Set of Measures has had only a partial impact upon me as a quality control employee and upon our group. Quality is judged more stringently; one can already feel the pressure to reduce the number of rejects and the reject limit is closely monitored; none of our group, however, has thus far felt this in our pay.

P. Sekyt: In our plant, we had earlier been familiarized with the requisite quality of work and with the appropriate level of remuneration. In the event that the work is not found to be of proper quality, then repairs are made which, in practice, are free. I do not personally run into any of this. However, there have been cases when certain people were penalized for work of less than adequate quality.

L. Matejka: It appears that those participating in our discussion all work in brigades or in plants where the quality is already fairly high. Otherwise the penalties for shoddy goods would be more palpably felt by them. In the indices according to which their wage funds are regulated, the enterprises are dependent upon the quality of their products. When quality is higher, prices are higher. First-quality goods are granted preferential pricing and, conversely, when a product is relegated to third-class quality, this is reflected in its price. This is plainly manifested both in the profits and in the volume of output. In addition, enterprises are very noticeably penalized for shoddy goods, for what they must pay due to complaints or guaranteed repairs when the extent of these repairs exceeds the set norm and when the customers incur additional losses. A level of internal rejects which exceeds the norm also has a negative effect upon the economics of the enterprises. Thus far we have been speaking of an effect upon the entire enterprise. It is important that the positive and negative results of the level of quality also extend to operations and to individual shops in order that the incentive system for quality reach even to the individuals who concretely influence the quality of the product. This must also be reflected proportionately in their salary.

[Question] Are there bonuses for shift work and for difficult stretches?

P. Nekyt: In Konstruktiva (along with other pay differentials for night shifts), they earlier paid KCs 20 per day for work on the second shift according to scale. A new scale has now come out and we do not yet fully know how it reads and how it will work out. We do know that an employee who works on two shifts for a month can receive up to KCs 800 more, but must also fulfill the objectives set out. That will definitely be a good incentive for increasing the number of shifts, because the differential is considerable.

V. Jirovec: We run a four-shift operation in our plant. Employees are given pay differentials for shift work and time and a half for Saturdays and Sundays. That means that in the course of a month, in contrast to those who work only on the day shift, these employees can earn approximately KCs 500 - 600 more each month.

M. Ruzickova: In our plant we are in continuous operation servicing tunnel furnaces. Oxygen cutters receive a 2-koruna differential for each hour worked on a multiple-shift operation. In addition, a two-shift operation has been introduced for packing and pressing facing tiles and there the ladies earn 70 haler more per hour. Nevertheless, I would be reluctant to judge whether this is adequate or too little for those who do shift work, since I am not on the afternoon shifts.

J. Zadnickova: When anyone works on two shifts in our plant, he receives a 10 percent differential. And now on the afternoon shifts that person is supposed to receive an hourly differential in addition to his basic pay. Besides this, we also received stabilization compensation which was given in selected plants with two-shift operations.

V. Jirovec: In our plant, employees on a continuous work cycle have a 40-hour week as their bonus; the others work 42 hours. In addition, shift workers have 1 day off each month with pay.

J. Nalepa: In the Hutni montaze [metallurgical assembly plant] most of us work a single shift. In the event of a breakdown or of extensive general repairs we work two shifts; then, of course, the employees receive an hourly bonus. There is also an opportunity of increasing one's personal merit-rating and bonuses by 20 percent.

I. Ornat: Judging by all that I have heard here, I would say that our enterprise does least to increase the number of shifts worked. In our plant, the afternoon shift receives a differential of 8 korunas and that is practically all. The night shift receives 10 korunas. The men work for 8-1/4 hours and the women for 8 hours. In my judgment that is small incentive for increasing the number of shifts worked. To illustrate, when I do shift work I earn only 40 korunas per week for it. And because on Friday from the afternoon on I have no connections, I do not even receive those 8 korunas for the entire shift worked.

V. Daniels: Workers who regularly alternate on the first and second shifts receive a differential of 13-1/2 korunas for the shift worked. In dangerous or difficult work areas they receive additional bonuses, taking advantage of capital assets. Nevertheless, it is difficult to get people to work the afternoon shift.

M. Dittrichova: As regards our plant, I can say that the majority "drive" to one shift. Workers on the afternoon shift are not given special compensation and on the night shift they have a 2-koruna differential, and this pertains primarily to smokers



and mothers. Those working under more difficult conditions receive an 80-haler hourly differential. What else can I say? We have a shortage of work forces and for that reason perhaps we cannot even go over to two shifts. Moreover, our employees are primarily working mothers.

V. Matejka: The practice of using pay differentials for work on the second or third shift is quite varied among the individual enterprises. That is proper where the differences correspond to the local situation and to the work conditions. However, we need at least in part to make the practice uniform. For this reason, in the Seventh Five-Year Plan we are gradually implementing the following approach everywhere: work on the second shift, i.e. between 2 pm and 10 pm, carries a differential of 1.5 - 2.5 korunas for each hour worked. Obviously, an enterprise can raise the differential by various forms of wage incentives. That is to say, in the present arrangement, the regulation of wages, how wages are to be managed, depends upon the enterprise. It will have considerably greater freedom than heretofore and will decide where better to direct bonuses; whether, in addition to the regular differentials, there should be more support for the second shift, or what other measures should be taken in order to secure a second shift. Our discussion has shown, and I would like to emphasize this, that not every thing is a mere matter of money, but that it also depends, for example, on whether transportation for an operation of more than one shift is guaranteed, whether adequate provision has been made to feed the employees, whether there is room in the nurseries, etc. In addition, there arises the question of a certain shortening of the work week in multiple-shift operations. The possibilities are varied. There have been discussions over which forms of compensation would be best for other shifts and the experiences of other socialist countries have also been studied. I think that the resolution to a significant degree will vary according to the type of manufacture, the branch of industry and also the regular practices of one or another enterprise. In the long-range view, we are talking about applying--for difficult stretches--industrial "robot" technology in the workshops and clinics. "Robots" are already at work in several enterprises. It will probably be advisable gradually to utilize them as well for such stretches and types of installation where a 24-hour operation is technically indispensable or economically advantageous. That is the long-range route which technical progress is pointing out to us.

[Question] Does your shop recognize fulfillment of the 10-day period?

I. Radnickova: We also monitor our fulfillment of the daily plan. There is a book in the shop in which the amount of production by the end of the shift is recorded. On the bulletin board, we then record how much we have done and by what amount we have fallen short or exceeded the plan.

V. Hrovec: We monitor production on a daily basis and record the situation on the wall newspaper. In our consultations on production, we then summarize the work unit with the results of the entire month and also with the fulfillment of the plan for the enterprise and for export. We are also motivated to do so.

V. Daniel: Our galvanizing plant has precisely established objectives for each day, each 10-day period and for the month.

M. Bitrichova: Our plant is under reconstruction and we have had a new shop since February. For the present, fulfillment of our daily objectives is not recorded on the bulletin boards. However, for each of the six machines, and therefore their crews as well, there is a daily norm.



L. Ornat: In our plant, the employees do not have an opportunity in the course of the month to learn the results, nor is there an overview of our progress in meeting the plan on a bulletin board; nor are we able to monitor how we are fulfilling the objectives for the 10-day period, how much we have done and how much there remains to do. We do not find this out until the third 10-day period when, for example, the foreman comes and says: "Boys, there is still a lot of work to be done." It is a shame that we do not have an overview of the situation for the entire month.

P. Sekyt: When we begin a job, we are first familiarized with the requirements. I manage to estimate the daily objective. Each week a geometer comes to us who "directs" the work. We fill out the weekly statements and thus we know how we stand and where we shall be by the end of the month. When we run late it is for the most part due to repairs; for example, we were just now at a standstill because there was no oil for the machine. We were told that there were no foreign exchange funds to purchase it and therefore we had to borrow two barrels. But we were shut down for 14 days.

L. Matejka: This confirms the fact that it is very important that everyone in the shop know their own objectives and also how to meet them. If everyone in the shop knew what their objectives were not merely for the month but also how much they are supposed to do today or tomorrow and how much remains to be done, then their interest would increase not only in the job, but also in their participation in its management. The worst sign and proof of poor performance in running an enterprise and intraenterprise units is when a worker says that he does not know why he did not receive a bonus or why he did get one. Supervisory personnel should devote a great deal more attention to these questions. This also means that the work unit should know where there were deficiencies in the work, what kinds of problems were thus caused the consumer or the customer, what losses were incurred and similar questions. Thus one must simultaneously heighten the sense of responsibility of each individual for the honor of the factory brand and for the good name of the plant.

[Question] Are bonuses paid on the basis of merit?

M. Šušickova: In our plant, bonuses are paid for technical units, for quality (mainly for first-class work) and for the level of productivity. The objectives and the indices are precisely detailed for each employee and each then knows what must be done in order to fulfill the plan. We have tables and by consulting them we can daily check how many items we have sorted, how many we are short and what percent is of top quality. We know daily whether or not we are meeting our objectives. I know from experience that there is interest in the results.

P. Sekyt: In our work we receive bonuses for each cubic meter of earth removed of a given quality. The team shares the earnings equally. I think that in our outfit no one would be able to do less than his share since we keep an eye on that ourselves. Conversely, if a person comes onto the night shift and the person he replaces says that he has done such and such an amount, then the person coming on is going to attempt to do more. All in all, it works quite well for us and there are no arguments over the bonuses.

L. Madnickova: We have a different system. We work as a team and what the final result will be depends upon each one. The key is to fulfill the plan, with quality next in consideration. If there are no complaints in the operation following ours,

only then do we receive a bonus. If we fail in any way, the bonuses are reduced for all. We work on four shifts and there are some small differences in performance; however, we must see that the younger employees do more than the older ones among us who have, let us say, 2 or 3 years to retirement. The latter cannot deliver such high output, even though they do quality work.

B. Ruzickova: I would like to add on that point that we also work as a team of three or four at the sorting belt. However, we attempt to do everything in the same fashion because we share in the results of our work. Selecting, sorting and packing facing tiles is not work for individuals. In our unit it cannot happen that one works a little more and another a little less, because the first one on the team selects the tiles, two have to sort them and the fourth has to pack them.

J. Nalepa: Among those who work in outside assemblies, the team bonus is 80 percent tied to productivity and 20 percent to quality. The evaluation that serves as the basis for calculating the bonus rates is done together with the trade union sectional organizer and the chief fitter or his representative. In our outfit, we have several professions represented: welders, fitters, and others. Each works according to the repair work schedule and thus we can daily monitor the progress and quality of the work. Then we check the results for the ten-day periods. At the end of the month the work is evaluated. It is obvious that not all do the same thing and therefore the evaluation must reflect this. One receives, let us say, 5 percent of the bonus and someone else 25 percent.

L. Matejka: Do you agree that on the whole the system of bonuses in your respective organizations is in order? The bonus system, just as every other form for evaluating the work of individual employees, is a complicated business, especially where there is no possibility of precisely measuring output. In the improved system of management, it is more than ever before essential that bonuses and various other forms of remuneration be used to ensure that pay corresponds to services. The system of remuneration must correspond to whatever an individual gives to society, to the enterprise and to the common goal of the work squad or the shop. The change from the old system was supposed to lie--and this has already been manifested in our discussion--in the fact that bonuses were now directed more toward meeting qualitative indices, i.e., to the means to efficiency, frugality and maintenance of quality.

During the current year the regulations on bonuses are being modified in this direction. Of particular concern is that in each enterprise it is precisely stated why and within what range the supervisory personnel, the workers and the technical economic personnel receive bonuses, what the basic criterion is for evaluating their performance, and for meeting what objectives will they receive special pay. This is very important because it sometimes happens that bonuses are erroneously understood as a given, regular portion of one's wages or pay. The principal fact is thereby lost that bonuses are supposed to be an incentive, a stimulus for meeting and exceeding goals and thus are a reward for fulfilling them and for good work of high quality. The regulations emanating from the Set of Measures determine the concrete forms of the bonuses and the indices on which they depend.

I would like once again to return to the question which we touched on earlier, namely, to the team form of bonuses. In the Soviet Union, they often speak of the brigade form of bonuses. Bonuses and special pay in such instances are set for the entire team. In the Soviet Union, the brigade itself decides who receives what from the special pay. A supervisor here does not himself determine the distribution of bonuses; rather, this is the business of the consultations on production of the

collective, which on this occasion employs criticism and self-criticism to evaluate its own work. That is a very demanding form but it corresponds to the socialist method of rewards. I think that it is good when even in the work unit it is clear who has been working better and who not as well, and when this is then reflected in rewards.

Y. Litvach: What primarily affects the payment of bonuses in our plants is the economic outcome of the center; secondly, the plan of production of the center and the gross return in korunas; the third index is quality. What concerns the distribution and differentiation of employees is a collective effort in servicing production facilities and monitoring technology. By evaluating the course of the shifts, it becomes clear how a given person is working. To the extent that some one does not meet objectives, I reduce his bonuses according to the gravity of the transgression. If it should happen that someone causes a drop in quality and that the entire team would be penalized and the whole amount recovered, then I would penalize whoever was responsible for the damage. It is within my competence to decide whether this reduction and any discussion on it reaches the consultation on production.

[Question] How much did you earn in January and February?

Y. Dattel: In 1980 our team in the galvanizing unit earned an average of KCh 17.44 per month. During the same period this year it was KCh 12.63. My hourly wage this year is 30 haler higher.

W. Dittvicheva: I also earned more than I did last January and February. This is due to the fact that I switched to a new machine which I operate by myself, whereas earlier I had worked on a five-woman team.

G. Litvach: I have roughly KCh 140 more per month because I changed jobs. The workers under whom I am foreman this year earn KCh 90 - 120 per month.

L. Volpov: Our brigade is on the same level as last year. However, whenever the plant work under onerous conditions, they can earn somewhat higher wages.

L. Litvach: During the first 2 months of the year our pay did not change. It is approximately the same as last year.

[Question] For the 2 months in question, I earned about KCh 380 more than last year.

[Question] For January, I had about KCh 200 more and for February KCh 800 less than last year.

[Question] That was due to the fact that my machine was not in operating condition.

[Question] This year I had 50 haler per hour more than last January.

L. Litvach: In order objectively to compare the wage rates this year with last, one would, of course, also have to compare outputs and work results. To the data mentioned, we must also add that last January and February there were fewer work days and more days with pay.

[Question] How is the Khozraschet being implemented in the plants?

Y. Litvach: In our place, an intraenterprise khozraschet has been in effect since 1972. This can also be recognized in the systems of remuneration in the centers.

For example, in January our enterprise produced goods of inferior quality due to the carelessness of a worker from the center making the semiproducts. Even though I had already paid for a truck to pick up the finished quality product, I reported the damage and the center that was responsible was penalized financially. In our group, conversely, bonuses were paid for the goals fulfilled.

B. Ruzickova: According to the principles of khozraschet we are saving money in every shop. We know how much the packing material, the gummed tape and the wire for tying costs. Each month, during the consultations on production we evaluate whether we are saving anything or not. In addition, we also have in front of us in the shop a large chart on which is written, for example, that a fireclay casing costs such and such, that when you save one carton you save such and such an amount....

I. Wilepi: We have been governed by the principles of khozraschet since last year. We can precisely ascertain during the course of assembly how much the use of the mechanisms will cost us and what the penalties are for exceeding the set limits. It happens, however, especially with more important projects, that due to a lack of structural preparedness we have to begin construction later than had originally been proposed. And then afterward we do a lot of catching up with a substantially greater number of fitters and with losses.

V. Daniel: At the beginning of the month we receive a detailed plan for the shop, for example, how much material we are supposed to use. We work with precious metals and have therefore established a comprehensive efficiency brigade aimed at conserving silver. Since the beginning of the year, savings have already reached KChs 500,000. For the present, we in the brigade have bound ourselves to save 350 kg of silver this year. Certainly we also have possible savings of imported zinc in mind.

L. Ernst: Thus far, this has not yet reached our shop. It is a shame that many workers do not even know what khozraschet really is.

J. Sadriskova: The principles of the khozraschet have reached our plant down to the shop. We know that they pay us to utilize material in such a way that there is the least amount of waste. We are financially dependent upon quality and upon the reduction of waste.

P. Sekyt: With us, economies are being enforced in the consumption of oil on the job. We are monitoring the operation of every machine. For example, I have here a report that during January we saved 9,000 liters of oil; but according to the number of cubic meters of earth we moved the norm was 12,000 liters. The involvement of the workers in cutting down on consumption, however, has not yet peaked.

L. Matajka: We have devoted almost the entire discussion to the intraenterprise khozraschet because even the preceding questions were more or less connected with it. Intraenterprise khozraschet as a form of management for intraenterprise units has been in force in our country since the fifties. Attention in later years decreased until now, in connection with the introduction of the improved system of management, there is an increase in emphasis upon intensifying these methods and implementing them in all areas. Stated quite succinctly, it is a question of the intraenterprise collective knowing what its objectives are, with what expenditures they are supposed to meet these objectives and what they will receive for it. Connected with this is the question of involvement so that each member of the team and the team as a whole will be motivated both to meet the objectives and also to accomplish this in the most economical way possible.



Last year type instructions for intensifying intraenterprise khozraschet appeared and now they are in operation in departments, production economic units and enterprises for application to concrete conditions according to the type of production. Hand in hand with this must go improvements in the organization of the enterprise management, in the basis for normalization and in the detailing of the objectives of the plan, etc.

[Question] What is your evaluation of the Set of Measures?

B. Rudakov: That is no scarecrow for us as I sometimes hear it said. I think that if we wish to increase our standard of living we must do a great deal to achieve it. And we want even more.

V. Firmer: As a result of the crisis situation which fell heavily on us in the area of energy and raw materials in recent years, the Set of Measures represents an effective solution. We must seek out all possible reserves in our work in order to be able to live as we do--and even better. Obviously there will be problems with this, e.g., how to work out the complex relationships among the enterprises. People can achieve the greatest savings in their own work areas; once good cooperation comes among the enterprises, our efforts will not have the needed effect.

I. Salupis: I think that the implementation of the Set of Measures has fundamental significance for the development of our national economy. Without an increase in the efficiency and quality of all work it will not be possible to sell our goods at appropriate prices on the world market, nor to satisfy the growing demands of our own people in the domestic market. I appreciate the efforts of the CPCZ to maintain the standard of living of our people under the complex conditions of world economics. Assuring the Set of Measures, however, in and of itself does not guarantee the standard of living. Therefore it is necessary that all of us, especially supervisory personnel, on all levels of management, both members of the CPCZ and nonparty people, devote the necessary attention to the introduction and implementation of the Set of Measures and that the plans that it monitors are fulfilled without loose ends.

E. Matijka: It has been emphasized many times that improvements in management constitute one of the most important reserves which we must exploit in order to attain the goals in the Main Directions of Economic and Social Development for the CSSR for 1981 - 1985 which will be discussed at the 16th CPCZ Congress. One of the key factors for improving the effectiveness of management is by thoroughly carrying out the Set of Measures. Thus, even today we have been speaking about it. Obviously it is one thing to adopt correct measures, it is another thing to put them into practice. It is not an easy matter to succeed in resolving with no loose ends in the course of several days or months. This is especially true in the current complex economic situation, when the planning work in the production economic units and the enterprises cannot yet rest to the required degree upon a detailed list of the 5-year objectives and standards.

... system of management operates except through people, through the responsible and initiative work of the supervisory personnel.

It will finally depend upon direct managerial activity and upon the ability to train the workers collectives to fulfill the objectives set, to what extent the goals an object from an improved system of management will be met. When we speak

of the need to improve management, we also have in mind of course the quality of decisionmaking on all levels from the central agencies down to the workshop and the responsibility of each element within management for the systematic development of the national economy, for the smooth operation of production, for guaranteeing the conditions for good work, for the stimulative participation of the workers in the management process and for high work discipline in each work area, as we have been talking about it in our discussion here.

We invited exclusively nonparty workers to our conversation. We wanted to hear from them how they relate to the document which the presidium of the Central Committee of the CPCZ and the government of the CSSR have approved as a guideline for improving management and planning in the national economy and as methodical instructions on increasing the efficiency and the quality of all work and as a result, more intensive formation of the resources which our society needs to create the conditions for the further development of the economy and the socialist way of life.

In our concluding question we posed the question to them directly. We received positive answers harmonious with what had been said in response to earlier questions. In the Set of Measures--as Bozena Ruzickova, the facing-tile sorter said--none of them sees a scarecrow, but an encouragement for honest work. Those who spoke with us expressed not merely their own view, but also that of their male and female coworkers in the shops, as well as their interest in having well-prepared work which they can complete as well as possible. They agree with the principle that pay should depend upon the amount and quality of work in order that honest work be fairly remunerated. They do not mind that there are increased demands for quality, that concrete responsibility for the product is demanded and that the present anonymity is done away with, as the rules of the Set of Measures require.

The atmosphere of our discussion was permeated by the understanding that the goal of the Set of Measures--or the improvement of the system of management and planning--is to raise the efficiency of the economy in the interest of further strengthening the high standard of living already attained in our country, and by a willingness to stand in the united ranks of communists and nonparty people in the further construction of a developed socialist society and in serving the good of all.

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## STRUCTURAL CHANGES IN CHEMICAL INDUSTRY VIEWED

Berlin DDR AUSSENWIRTSCHAFT in German 15 Apr 81 p 14

[Adaptation of an article published in RYNKI ZAGRANICZNE]

[Text] In the course of the completed Sixth Five-Year Plan (1975-1980) the Czechoslovak chemical industry continued to develop, albeit at a slower pace. Viewed generally, the situation prevailing in this industrial branch called for modifying the developmental strategy pursued in the past mainly by reappportioning capital investments. While capital investment in the first 2 years of the five-year plan amounted to Kcs 6.0 to 6.2 billion per year, only Kcs 3.0 billion were invested in 1978 and Kcs 3.5 billion in 1979. Overall, Kcs 18.8 billion were invested in the chemical industry from 1976 till 1979 or a yearly average of Kcs 4.7 billion (1971/75=5.1 billion). In the period from 1976 till 1979 the proportion of investments in the chemical industry of the overall amount invested in the CSSR economy as a whole was around 9 percent (1971/75=12 percent). Due to changed conditions in the chemical industry investment priority shifted to completing projects under construction and to modernization and rationalization of existing plants.

According to most recent official estimates over the Sixth Five-Year Plan chemical production in the CSSR increased by 30 percent, representing an average annual growth of 5.5 percent. According to this estimate the growth achieved in the first three quarters of 1980 was approximately 4.5 percent. Overall, the CSSR chemical industry continued to develop at a faster pace than total industrial production.

## Results of Individual Production Sectors

Of individual production branches of the Czechoslovak chemical industry the petrochemical industry, the basis for the production of polymers and other plastics, was treated most favorably. The largest enterprises of this sector include the petrochemical combines in Bratislava (Slovnaft) and in Litvinov, which were built in the sixties and use primarily crude oil imported from the USSR as feedstock. These enterprises were enlarged in the seventies by the addition of new capacities primarily for the production of ethylene, propylene, aromatic hydrocarbons and organic industrial chemicals. The processing of crude oil increased from 10.1 million tons in 1971 to 15.9 million tons in 1975; according to preliminary data 1980 production reached the volume of approximately 19 million tons.

Great progress was achieved in the production of plastics. Between 1975 and 1979 the output of plastics doubled to 853,000 tons; in 1980 this chemical sector experienced the fastest growth of the entire industry. The 1980 plastics production reached a volume of almost 894,000 tons. That same year the CSSR per capita production of plastics was 56 kilograms.

In answer to domestic demand and the trend prevailing on world markets CSSR production concentrated primarily on developing its production capacity of polymers--polyethylene, polypropylene, polyvinyl chloride and polystyrol. In the course of the Sixth Five-Year Plan their production rose disproportionately and by 1980 the proportion of polymers increased gradually to almost 70 percent of the total production of plastics.

In contrast, chemical fiber production slowed down. Between 1975 and 1979 their production increased from 140,000 to 152,000 tons; in 1980 output rose by 7 percent to 162,000 tons. The structural reorientation of the assortment aiming at increasing the proportion of modern synthetic fibers had a decisive influence on the results of this production branch. Between 1975 and 1979 its production rose from 69,400 to 97,000 tons and its proportion of overall chemical fiber production rose from near 50 to 64 percent. The output of traditional staple fiber decreased correspondingly from 70,600 tons to 54,400 tons.

Between 1975 and 1979 synthetic rubber production rose by 4.5 percent from 56,7000 to 59,300 tons and reached in 1980 an estimated 60,000 tons. The steadily increasing needs of the rubber industry required the importation of ever increasing quantities of this material to meet demand which resulted in a rise in tire production. In 1979 6.6 million tires were produced, a mere 10 percent more than in 1975.

In the past five-year plan individual production branches of the CSSR chemical fertilizer industry developed differently. Best results were achieved in nitrogen fertilizer production as a consequence of increased capacity. Expressed in 100 percent nitrogen its output rose to 618,300 tons (compared to 591,000 tons produced in 1979 and 497,000 tons produced in 1975). The 1980 output of phosphate fertilizers reached an estimated volume of 370,000 tons (compared to 398,000 tons in 1975) expressed as phosphorus pentachloride, largely a reflection of the international situation on the phosphorite market. As a result sulfuric acid consumption, whose production over the past 5 years fluctuated between 1.2 and 1.3 million tons, also exhibited a downward trend. Available estimates indicate that the 1980 production of potassium fertilizers was approximately 200,000 tons (as compared with 175,000 tons in 1975).

Overall annual CSSR fertilizer production of around 1.2 million tons continues to be short of domestic demand, which is said to be 1.8 million tons. The degree of self-sufficiency in individual types of fertilizers varies widely. While the country is almost self-sufficient in the production of nitrogen fertilizers domestic phosphate fertilizer production meets only about 80 percent and domestic potassium fertilizer production only 30 percent of the demand.

In the last five-year plan pesticide production increased gradually, with great efforts expended on increasing the supply of new effective preparations. Overall,



between 1975 and 1979 pesticide production increased from 13,800 tons to 16,000 tons; the 1980 production was somewhat higher.

#### Production of Selected Basic Chemicals

	1975	1979 in 1,000 tons	1980 <sup>1</sup>
Sulfuric acid	1,245.0	1,253.0	1,300.0
Ammonia	863.0	977.0	
Calcined soda	133.0	133.0	135.0
Caustic Soda	257.0	310.0	
Nitrogen fertilizers <sup>2</sup>	497.0	591.0	618.3
Phosphate fertilizers <sup>2</sup>	398.0	358.0	370.0
Pesticides <sup>2</sup>	13.8	16.0	
Synthetic dyes	10.7	12.6	13.5
Plastics	428.0	853.0	893.9
Chemical fibers	140.0	152.0	162.1
of these synthetic fibers	69.4	97.6	
Synthetic rubber	56.7	59.3	60.0
Detergents <sup>2</sup>	19.0	20.5	

1. Preliminary data; 2. Expressed in 100 percent active substance

In view of the energy and raw materials supply situation prevailing in the CSSR increasing emphasis is being placed on developing chemical products requiring a low input of energy and imported raw materials. The dye industry with its long tradition and secure position on foreign markets, especially on the CEMA market, plays an important role here. Between 1975 and 1980 dye production rose by 20 percent to more than 13,000 tons, while its value rose even more. During this time period the production of paints and varnishes, pharmaceuticals, cosmetics and perfumes, as well as of plastic consumer goods, recorded a higher rate of increase than overall median chemical production.

The proportion of the production of these branches of overall CSSR chemical production is expected to continue its upward trend. The cooperation and specialization agreements concluded with CEMA countries, primarily with the USSR, constitute a contributory factor in this development. These agreements stipulate planning new capital investments for the production of especially those chemical products requiring a high input of energy in countries with optimum raw material conditions for such production. This orientation is a demonstration of the active participation of the CSSR in a joint investment policy which is being implemented by CEMA countries under the leadership of the Standing Committee of the Chemical

Industry. Intensified participation of the CSSR chemical industry in this cooperative effort helps supply socialist countries with chemical products whose production requires a considerable input of labor and know-how.

#### Unevenly Expanding Foreign Trade

Intensifying industrial and trade cooperation with CEMA countries, to whom the CSSR chemical industry is bound by numerous specialization and cooperation agreements greatly enhances the respective export volumes. In the past five-year plan the export of chemical products rose especially fast. In 1979 it amounted to around Kes 3.98 billion (2.41 billion in 1975). The increased annual export rate of 13.5 percent in this time period considerably exceeded the growth of chemical production and of corresponding imports.

One of the most conspicuous changes in the export of chemical products from the CSSR was the large increase in plastics deliveries attributable to the fast development of this industrial branch. From 1975 to 1979 the export of plastics rose fourfold to Kes 1 billion, its proportion of overall exports of chemical products increased to 25.2 (10.3) percent. In contrast, the corresponding proportion of organic and inorganic chemicals decreased over the same period to 27.1 (36.4) percent.

Of other export deliveries pharmaceutical products (13 percent of the total export of chemicals), dyes (8.6 percent), explosives for the mining industry (6.6 percent) and paints and varnishes (5.2 percent) played an important role.

#### Foreign Trade With Selected Chemical Products

	Export		Import	
	1975	1979	1975	1979
	in million Kes			
Total	2,414	3,982	3,895	5,705
of this				
Plastics	249	1,002	613	734
Organic chemicals	675	837	533	928
Pharmaceuticals	366	518	341	554
Dye	227	343	141	212
Explosives	121	264	18	63
Inorganic chemicals	204	243	622	889
Paints and varnishes	174	205	135	242
Cosmetics and detergents	122	198	212	294
Fertilizers	22	17	279	421

Until 1979 the import of chemical products to the CSSR increased yearly by an average of 10 percent to Kcs 5.71 billion (Kcs 3.90 billion in 1975). Here opposing trends in the assortment structure of imported chemical products can be noted with the proportion of plastics decreasing from 15.7 percent to 12.9 percent and the proportion of organic chemicals increasing simultaneously from 13.7 to 16.2 percent. The proportion of imported pharmaceutical products also increased from 8.8 percent to 9.7 percent, while other groups of chemical products exhibited comparatively insignificant changes.

In developing contacts with foreign countries contacts of the CSSR chemical industry with CEMA member states play a key role. Almost 50 percent of the CSSR foreign trade volume of chemical products go to these countries, including 58 percent of exports and 40 percent of imports. The USSR and the GDR have for many years been the CSSR's principal partners in chemical products' trade, followed by the Polish Peoples Republic.

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CSO: 2300/217

BRIEFS

CSSR CONTRACTS IN BURMA--Slovak Plzen will build a sugar mill worth \$16 million in Zeyawaddy, Burma. The mill will have the capacity of processing 1,500 tons of sugar cane per day. In addition, Technoexport signed a contract, in Rangoon, to expand a brewery in Mandalay, built by the British in 1886. [Bratislava SMENA in Slovak 18 May 81 p 5]

COOPERATION WITH MEXICO INCREASING--The CSSR will expand its economic cooperation with Mexico, one of the first projects being the delivery of 4 CSSR-made 100 megawatt Kaplan-type turbines for the Penitas power station in southeast Mexico. Future projects will include cooperation in construction of sugar mills and cement plants in Mexico. [Prague PRACE in Czech 20 May 81 p 2]

CSO: 2400/201



# WESTERN TRADE TRENDS, EXPORT INCENTIVES ANALYZED

Budapest FIGYELO in Hungarian 22 Apr 81 p 1

[Article by Istvan Garamvolgyi: "Enterprise Export Dilemma: Only the Best--or the Good, Too"]

[Text] Last year our international commodity trade in the nonruble account sector proved successful: at contractual parity the trade balance for the first time since 1973 again closed with a balance surplus, a modest one, and the border parity balance was also almost balanced.

Various factors played an active part in the favorable balance results. We required less nonruble imports for smaller economic growth, and the energy-saving measures also reduced import demand. The foreign exchange value of nonruble account exports rose dynamically partly as a consequence of good price work and a more than 10 percent increase in the export price level. It is also worth mentioning that in 1980 the terms of trade improved in nonruble trade.

But it is also a fact that not only did the export achievements affect the balance favorably but also certain--one-time employable--circumstances as well. (The fact that we had to import less energy sources than the year before had a decisive influence on import value and volume as well as on the terms of trade.) In respect to the present and the future, it remains timely and necessary to support and to realize the efforts at a foreign economic balance with an appropriate export increase.

## Pointed Incentive

It gives cause for concern that in the past year the volume of nonruble account exports in the processing industries was stagnant, only the export of food industry products increased. But in the previous years, the characteristic thing was that the volume of nonruble account exports grew dynamically--in harmony with the regulator and incentive system--to a greater extent from year to year than the price level of the exports. (In 1976-1979, for example, the volume of nonruble account exports increased by 46 percent, the price level by 7 percent.) In the past year the trend turned in the opposite direction, the price level rose dynamically, and the volume--with the exception of agricultural products and materials--rose all in all by 2.1 percent.

In the 1970's, in the mirror of experience, it had to be concluded that with the increase of volume alone--without the simultaneous and constant improvement of export economy--the foreign economic balance could not be approached and stabilized. But it was also sure that a certain increase in volume--appropriate to the criteria of economy--had to be associated with incentive "pointed" for profitability and the price level.

The concept of competitive price formation also took into account the fact that the processing industry enterprises would strive to increase the price level and profitability of their nonruble account export and that at the enterprise and national economic level an economic--but not the most profitable--increase in the volume of exports could be assured and obtained, lacking a direct incentive, by the exact regulation of domestic purchasing power.

Undoubtedly, an exact or inexact adjustment of domestic purchasing power has an effect on foreign trade, including nonruble account trade. In general, this is how the effect comes about: if the domestic purchasing power exceeds the target, imports increase strongly and the surplus purchasing power draws capacities from export. Another finding is the following: if we regulate, or reduce to a relative or absolute extent, domestic purchasing power in harmony with plan goals, we create capacities that require foreign market sales.

#### Free Capacity Is Too Little in Itself

The past decade has provided ample examples of both types of purchasing power regulation. The effect which can be clearly and convincingly shown first of all is that a purchasing power which exceeds the target--savings, for the most part--increases the nonruble import of investment goods and producer means, whereas the export achievement of industry does not unconditionally deteriorate. In 1977, for example, total domestic consumption was both greater than the target and the previous year's consumption, and still the volume of industrial products sold on foreign markets rose by almost 15 percent over the year before. And although this rise of domestic consumption appeared in investments, the volume of machine industry exports increased by 13.6 percent, in nonruble trade by 10 percent.

And what effect does the restraint, the regulation of the domestic purchasing power, according to plan, have on nonruble industrial exports? In 1979, total domestic consumption declined, the volume of industrial exports increased by 12.7 percent, and the greater export achievement appeared primarily in nonruble account exports. (The volume of machines, transportation means and other investment goods increased by 27.3 percent, and that of consumer items by 8.8 percent.) The counter-example occurred in 1980 when with a further decline in total domestic consumption the volume of industrial exports increased by 1.5 percent, to a lesser extent than in the years 1975, 1976, 1977, 1978 when the domestic purchasing power exceeded the target.

We have to conclude, therefore, that domestic consumption, the regulation of purchasing power does not affect the export achievement of industry by direct transmission or in some kind of automatic way. (If such a way existed, nonruble exports should have increased particularly fast in the past year because not only the domestic but also the CEMA-market buying capacity was limited.) Other factors seem

to have a decisive role in the process of conversion. Namely, market change is a time-demanding and costly process, and production for a possible market from the viewpoint of capacity must be prepared for in market research, manufacture, and buyer services. But independently of this, the cyclical conditions of foreign market sales and the interest of the industry in nonruble export have a decisive role.

The conditions for sales on the capitalist market were relatively favorable in 1979, as indicated by the fact that our export price level, which was stagnant in the preceding 4 years, rose by almost 10 percent. This circumstance and the existing regulator and export incentive system contributed to a dynamic increase of 26.4 and 15.6 percent in the value and volume of export. Proceeding from the regulator and price system, the export incentive in the past year as compared to the one before became basical = modified, and the cyclical circumstances and conditions of foreign market sales deteriorated gradually. At the beginning of 1980, nonruble account orders in industry for the first two quarters forecast significant export dynamics, among other things a volume increase, but not the second half-year orders fixed at the beginning of July. (The actual export also varied from the usual movement curve, the forint value and the volume of machinery and consumer industrial items in nonruble export exceeded to a greater or lesser extent that of the year before, whereas the surplus declined from month to month and at an annual level dropped below 100 in volume.)

We can only guess what would have happened if the foreign market conditions had not deteriorated. It is a fact, however, that a domestic consumption that was lower--as an economic compulsion--than in 1979 could not in the midst of the deteriorating cycle influence with the driving force of the existing regulatory system a modification of the production and marketing of the processing industries, and the utilization of free capacities in the nonruble account export.

#### Effort and Compulsion

This was mainly because in the 1980 regulatory system in the competitive area--hence in the processing industry--the price formation and price mechanism being realized at these enterprises stimulated the reduction of the volume of economic export. It is obvious that in the regulatory system the main effort of the competitive price-formation enterprises is the improvement of profitability and the increase of profit. The two basic rules of the price mechanism that follows exports--the limit on profitability and the price level--stimulates actually good, desirable goals for the improvement of the price level and profitability of the nonruble account enterprise export, which has a favorable effect on the pursuant domestic prices and the profitability. Other elements of the nonruble account export price level and profitability also require constant improvement in the price level and profitability of nonruble account export (the upward evaluation of the forint in the commercial rate of exchange, and the relatively even but in any case continuous profit growth required by a base-outlook wage regulation.) In this requirement system the interest of the enterprises is not linked to the maintenance and increase of economic export but to the best export from the viewpoint of price level and profitability. Interest pointed for the "best" export stimulated some of the enterprises to the elimination of noneconomic exports--and this was a selective type of selection--, but it also stimulated a composition modification by

those who for the sake of improving price level and profitability eliminated economic exports at the enterprise and national economic level. This is by no means an assumption: the profitability index for nonruble account export skyrocketed for many enterprises in the second half of the year. (This is not what is bad, but the products that were selected out and were less economical and profitable only at the enterprise level were replaced at the best at the national economic level by indisputably less economic products of other industrial branches, or as in the past year the volume of industrial export is stagnating.)

Of course, it cannot be maintained that every processing industrial enterprise improved its profitability positions by this type of selection and restraint of export volume. Many a machine and light industry enterprise increased both exports and their profitability, in the case of others only the value and volume of the exports increased but the profitability deteriorated, and at certain enterprises both the volume and profitability of export achievement declined. But the overall effect was that the trend expressed in export volume growth was broken in 1980. (This year's orders for nonruble account export--judging by surveys made at the year's beginning--showed a volume decline as compared to last year's.) It cannot be excluded --and it is rather probable--that an interest in the "best" export from the enterprise point of view provides an incentive even more broadly than last year to an improvement by volume decline of the export price level and profitability and to the elimination of economic exports.

#### Blunting the Side Effects

It is only possible at the most to blunt these side effects of competitive price formation and the new regulatory system--which are harmful to the national economy. We can by no means ignore the fact that the regulation of the domestic purchasing power in itself and without other means ignore the fact that the regulation of the domestic purchasing power in itself and without other means does not hold out promise of good results. Only such solutions that can be fit into the price system and the price mechanism can be considered which on one hand hinder a considerable holding back in the volume of exports--for example, if the price-level and profitability improvement are not automatically realizable in domestic prices--and on the other hand make possible the growth of economic export. This assumes, however, a temporary release from the price-level or profitability limit. These possibilities of blunting the contradictions can be used only apparently with a normative character because the variations in the enterprise ratio of nonruble account export are very great. (It is another matter that in this respect the normative nature of the regulation is also apparent: independently of the concrete extent of export economy, it requires a "normative" improvement from every enterprise.)

It is a matter of viewpoint how one evaluates the application of solutions for blunting contradictions: as a relaxation of requirements or adjustment to realities. Exploitation of economic export possibilities at the national economic and enterprise level is unconditionally useful and advantageous for the economy because it narrows the share of uneconomic exports.

But in the interest of increasing economic, nonruble account exports, the above-mentioned changes are justified from other points of view as well. Over the short run, within a year or two perhaps, the problem of increasing export achievement can



be solved within the existing price structure, but the market demands keep changing, and the export structure must be constantly modified. It hardly needs to be shown that the production of the new product begins generally at a high cost level, and the same is true of its appearance on the new markets. Is the renovation--the "biological" process as it were--that occurs with the manufacture of products of the production structure in harmony with the price-level and profitability interest of the enterprise? Last year in their foreign sales, the producer and foreign trade enterprises not only considered their individual products but also increasingly the price position of the markets, and the selection extended to markets. But how far can the increase in export achievement be built exclusively on this, and can it be concluded that we should appear with the given product on other markets as well and perhaps be forced to temporary price reductions? The problems and doubts expressed in the questions that have been put above did not become intense in the past year, but they are recognizable in the general situation picture of nonruble account exports.

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## HUNGARY

### STATE OF PHARMACEUTICAL INDUSTRY, OUTLOOK FOR DEVELOPMENT SUMMARIZED

Budapest MAGYAR KEMIKUSOK LAPJA in Hungarian Vol 36 No 2, Feb 81 pp 57-60

[Article by Gyorgy Csakvari, Hungarian Pharmaceutical Industry Association, Budapest]

[Text] Next to electronics, it was the chemical industry which affected our century most in the course of its industrial revolution. The most dynamically growing sector of the chemical industry was the pharmaceutical industry, which became an important factor in lengthening the average lifetime. The importance of the development of the pharmaceutical industry transcends general industrial development since it contributes toward the maintenance of health, affecting not only the chemical industry but also the development of various sectors of the medical sciences.

#### Current State of the Hungarian Pharmaceutical Industry

The Hungarian pharmaceutical industry has a past of more than 100 years. However, it has reached its decisive development stage only after the turn of the century. The rate of development accelerated after liberation and nationalization. The Hungarian pharmaceutical industry reached the level of production of the last year of peace before World War II (1938) in 1950. During the subsequent 30 years, the value of its production increased approximately 30-fold.

Examining the dynamics of the export activities, we also note major growth: the export to the dollar market area increased approximately 40-fold between 1955 and 1980, and to the ruble market area approximately 35-fold. It is advisable to use the year 1955 as the reference basis since it was only since this year that we have an export volume worth considering.

On the basis of the achievements outlined above, the following factors characterize the state of the pharmaceutical industry within the Hungarian national economy. From the export volume of the economy,

- exports of pharmaceuticals amount to 4.3 percent, to which we must add 0.5 percent representing the export of pesticides manufactured by the pharmaceutical industry;
- exports to the ruble market area amount to 6 percent and to the dollar market area to 3.8 percent; insofar as value is concerned, pharmaceuticals are on the third place in the export to the dollar market area.

The Hungarian pharmaceutical industry procures 1.5 percent of the world's production of pharmaceuticals; it represents 5 percent of the world trade in pharmaceuticals.

It is also an important fact for the economy as a whole that the pharmaceutical industry has achieved much of its growth from its own resources before the implementation of the reformed economic mechanism, and solely from its own resources, without any budgetary support, after the implementation of this mechanism.

Insofar as the dynamics of growth is concerned, the Hungarian pharmaceutical industry is a leader on the worldwide scale. It was 7th or 8th compared to other countries of the world during the last 20 years. At this time, it produces 76 percent of the total needs of the domestic consumption of pharmaceuticals. There has been a major change in this during the last 10 years, since the corresponding percentage was 96 percent in 1970.

The causes and major factors for this can be found when we examine the international division of labor.

Within the CEMA, Hungary is the largest supplier of pharmaceuticals, and its products play an important role in the supply of pharmaceuticals of the member countries.

Hungary manufactures 110 of the 248 pharmaceutical-industry products proposed for specialization within the CEMA. As integration grows, it becomes possible to specialize certain medium- and high-volume products to one or two countries. This goal could be primarily realized by bilateral agreements. As a result of bilateral specialization agreements, approximately 20 percent of our domestic pharmaceuticals need is met by the pharmaceutical industries of the socialist countries.

A multilateral production-specialization agreement has also been signed; it could represent the start of further division of labor.

Close cooperation has been achieved with medium-size and large enterprises in countries of the dollar market area in terms of licence procurement and sale. Approximately 15 percent of all products manufactured by the Hungarian pharmaceutical industry is based on purchased licences. In spite of this fact, our licence import-export balance is still positive, which is a testimony to the effectiveness of our research activities. A closer form of cooperation is the establishment of joint enterprises; some such enterprises have already been set up with medium-size producers from capitalist countries. On the basis of favorable experiences in this area, we wish to continue and enlarge our activities aimed at the establishment of joint enterprises.

Approximately 50 percent of the materials needs of the Hungarian pharmaceutical industry is imported. Eighty percent of the imports come from countries in the dollar market area.

This is a major problem of the Hungarian pharmaceutical industry, which it cannot solve by itself. Most of the intermediate products used are specialized compounds, used in the pharmaceutical industry and perhaps also in the dye-manufacturing industry. The amounts we use, or any single socialist country uses, are so small that it would be uneconomical to set up a factory to produce them. The only promising approach would be to set up a manufacturing capacity in one socialist country within the CEMA specialization program to supply the needs of all member countries.

At the present time, the pharmaceutical industry exports approximately 60 percent of its production. Forty percent of the export is to the dollar market area; 60 percent to the ruble market area.

There is a difference in the ratio of finished pharmaceuticals and active ingredients within the export structure. While the percentage of finished pharmaceuticals amounts to more than 90 percent in the ruble export, the corresponding percentage is only 10-11 percent in the dollar export.

The contribution of the pharmaceutical industry in our chemical-industry export to the ruble market area is more than 60 percent; the corresponding percentage to the dollar market area is 30 percent.

Export to the ruble market area, which represents 35 percent of the production of the Hungarian pharmaceutical industry, is particularly important since it enables the production of very large lots, so that it becomes



practicable to establish capacities which are large enough to produce in a very economical manner. This situation enables the use of high-quality engineering solutions. It is thus evident that export to the ruble market area is not a competitor for domestic consumption. Quite to the contrary: The potentialities which it offers enable us to meet the domestic needs for pharmaceuticals by modern, developed technology in a highly economical manner.

#### The Product Structure of Our Pharmaceutical Industry

In spite of the fact that production specialization among the socialist countries permitted a reduction of the ratio of Hungarian pharmaceutical products in the domestic consumption of pharmaceuticals, thus reducing the product assortment, the Hungarian pharmaceutical industry still produces too many products to be most economical.

Compared to the 50-60 products made by competitor enterprises of similar volume on the world market, our pharmaceutical industry today manufactures approximately 300 products. The goal of development, primarily of production development, is to contribute toward meeting domestic needs and export goals by ensuring the production of long-life active ingredients from among the products in specialized plants under optimum technological conditions and in an automated manner. Products which are subject to frequent change or of which the volume is not yet finally established should be produced in multipurpose, flexible facilities under high-level technological conditions. Such flexible plants also provide the basis for the rapid industrial implementation of new preparations originating from research. Although the pharmaceutical industry can report some accomplishments in the field of mechanization of material transport within the Fifth Five-Year Plan period, this matter is still not at the optimum level, so that further mechanization and automation will be required in the enterprises, both in interplant and out-of-plant material transport. Chemically grandiose, advanced solutions characterize the manufacturing technology of active ingredients within our pharmaceutical industry; however, the operational and engineering implementation is not up to the same level in all instances. This factor, plus deficiencies in work and plant organization are the causes for the fact that the production per employee is somewhat behind the level of developed industrialized countries.

Insofar as finishing and packaging are concerned, we are close to the world standard, as a result of developments accomplished during the Third and Fourth Five-Year Plan periods, especially insofar as technological equipment is concerned. Accordingly, our productivity is satisfactory in this area on a per-capita basis.

The growth dynamics of the pharmaceutical industry during the last 20 years can be characterized by the fact that the value of the production increased 19 percent, that of the socialist export increased by 17 percent, and that of the non-socialist export increased by 15 percent per year, while the staff increased by 6 percent per year. During the Fifth Five-Year Plan period, there is an approximately 60 percent increase in productivity while the staff remains practically the same.

The rotation rate of the product assortment is close to 5 percent per year, which is in line with the corresponding indicator for our major competitors.

There were more than 300 new formulations introduced during the last 20 years; 30 of these are original active ingredients generated by domestic research. A product-structure study indicates that 40 percent of the current products of the pharmaceutical industry is competitive on the world market, and 30 percent could be made competitive.

Six producing enterprises operating under the jurisdiction of the Ministry of Industry (Alkaloida, Biogal, Chinoin, EGYT [United Pharmaceuticals and Nutrient Works], Kobanya Pharmaceutical Works, and Reanal), two research institutions (Pharmaceutical Research Institute and Medicinal-Plants Research Institute), and the Pharmaceutical Industry Supply and Service Enterprise voluntarily established the Hungarian Pharmaceutical Industry Association to coordinate their joint interests. The Herbaria Medicinal-Plant Marketing Enterprise is also a member. There is a "pool" agreement in effect between the Hungarian Pharmaceutical Industry Association and the Medimpex Pharmaceutical Foreign-Trade Enterprise to protect the joint interests in the course of the export and import activities.

The industrial enterprises and Medimpex have established several joint or purely Hungarian enterprises abroad in the non-socialist sphere. These enterprises operate successfully.

Negotiations are also underway with the goal of setting up joint enterprises in Hungary with foreign firms.

Most of the research and development base of the pharmaceutical industry, as well as most of the production capacity, is located in Budapest today. Further extensive development in the production sector is no longer feasible in Budapest. Thus, such development will have to be made in the future in existing locations in the country or in locations to be made available for this purpose in the country.

Research activities will continue to be based in Budapest; however, two factories, Alkaloida and Biogal, plan to set up a research facility in the country, in the city of Debrecen, in cooperation with the universities and academic research groups operating in that city. (The article by Gyula Horvath, entitled "Pharmaceutical Research In Hungary," published in this issue, deals with the research trends of the pharmaceutical industry in detail.)

The research activities of the pharmaceutical are is up to the international standard primarily in the area of chemistry, broadly interpreted (syntheses, isolations, physical chemistry, analytical chemistry). This is in line with the traditions of Hungarian pharmaceutical-industry research, since the scientists of the past, who laid down the foundations of our research, were mostly chemists and pharmacists.

In recent years we made promising and successful steps, in line with the new trends of pharmaceutical research, toward major increase in biological and biochemical studies. However, we must create a development after systematic rethinking in this area.

An important step forward is the national clinical-pharmacological network which was established since 1967. Under centralized scientific supervision, this network offers favorable opportunities for the objective examination on humans of new pharmaceuticals which proved successful in animal experiments.

We must resurvey our active-substance resources with the methods of biopharmacy while we develop the pharmaceutical industry in a dynamic manner, precisely because the research costs of active substances grow at a fast rate. We can, and must, examine the interactions of pharmaceuticals from the point of view whether they could offer a possibility for better utilization of the active substances.

Insofar as product development is concerned, the achievements of the recent past were outstanding in the optimization of certain methods. This has resulted in significantly reduced production costs, and became one of the major factors responsible for the achievements of our industry sector.

Insofar as the investments of the pharmaceutical industry are concerned, we must say that there was some inconsistency. Although the industry sector has achieved major development during the Fifth Five-Year Plan period, the realistic needs have always outpaced the material resources during the last 20 years or so. Thus, only part use could be made of the potentialities. The work quality and the work schedule of the construction work was not as good in all cases as we would have liked them to be.

## Change in the Production Structure of the Pharmaceutical Industry

It is advisable to deal briefly with the diversification of the production of the pharmaceutical industry.

During the Fourth Five-Year Plan period, marketing of the products of the pharmaceutical industry showed a 30/70 percent ratio between the domestic market and the export markets. In view of the fact that at that time the Hungarian pharmaceutical industry supplied approximately 95 percent of the domestic needs -- and it was desirable to reduce this percentage -- there appeared to be no possibility for realizing these ratios without a change in the product structure. In addition to this, with a reduction of the product assortment and the increase in the extent of international cooperation, one expected a lesser increase in the ratio of domestic marketing than the expected increase in domestic consumption of pharmaceuticals.

Considering these factors, the pharmaceutical industry in general, and individual pharmaceutical enterprises in particular, sought new manufacturing profiles. Two directions offered themselves naturally. One, because of the similarity in the use areas, was therapeutic cosmetics; the other, because of similarities in research and manufacturing methods, was the production of pesticides.

Approximately 25 percent of the domestic pesticide production comes from pharmaceutical enterprises.

The achievements in the field of cosmetics are significant but in terms of their value contribution they are not decisive. Insofar as the manufacture of pesticides is concerned, the rapid growth of domestic consumption gave an appropriate market background for the plans of the enterprises.

The current value of the ruble-area export plus the export of basic chemicals and synthetic fertilizer within the framework of the Hungarian-Soviet Agricultural Chemical Agreement, counterbalanced the import needed for the pesticides.

The negative bottom line of the manufacture of pesticides is caused by the lack of original materials at the present time. Intensive studies are underway to eliminate this problem.



## Trend of Future Development

The accomplishments achieved so far play a decisive role in the formulation of the future of the pharmaceutical industry. The Hungarian pharmaceutical industry as a whole is among the first 20 pharmaceutical enterprises of the world.

Forecasts on worldwide production of pharmaceuticals show a dynamic growth trend for the next 10 years. According to the Stanford Research Institute, the value of the world's pharmaceuticals production was 30 billion dollars in 1975, and it is expected that this value will double by 1985. The value of the world's production in 2000 is estimated to be 120 to 125 billion dollars. The general growth rate of pharmaceuticals production is estimated to be 8 percent. International marketing of pharmaceuticals represents 16-20 percent of world production.

However, the consumption increase rate is below average in the developed countries, including the socialist countries in Europe. It seems rather that there is a shift toward the use of more expensive and more modern products. A deficiency in pharmaceuticals supply is primarily evident in the developing countries. Accordingly, market saturation will not hinder the development possibility, especially not in the dollar market area.

This is the economic background of the planned development of the pharmaceutical industry, which is formulated in the "Central Development Program for the Manufacture of Pharmaceuticals, Pesticides, and Intermediate Products."

We plan to increase the gross production value of the industry sector by approximately 50 percent between 1980 and 1985. Insofar as the marketing of the production in the three major areas -- the domestic market, the ruble-market area, and the dollar-market area -- is concerned, we plan the most dynamic advance in the dollar-market area.

The growth of domestic consumption will be 5-6 percent per year, including the pesticide needs. The growth of socialist export, within the framework of the intergovernmental agreements, is expected to be 25-30 percent between 1980 and 1985.

Our plans call for a 90 percent increase in our dollar-market area export volume between 1980 and 1985. The major part of the export increase should, according to market forecasts, be toward the developing countries.

Of course, it is not the sole purpose of the pharmaceutical industry to increase its production in general and its export volume in particular. Its primary purpose is to meet the domestic need for pharmaceuticals, representing a major element of hygienic supply, at a modern level, and to produce the most modern pharmaceuticals on the basis of its own research activities, licence procurement, and international cooperation, as well as to maintain its position achieved so far in the supply of pharmaceuticals for the socialist countries. Negotiations have been initiated within the CEMA about the establishment of a joint enterprise among the socialist countries.

In addition to the planned export growth, we plan to modernize the products shipped and to introduce new and more modern products, so as to strengthen our present reputation and desirability of our products. The primary way to ensure this is to create products requiring much research and manufactured by means of new and independent techniques. The foreign-trade concept for the 1980-1990 period is under development; it incorporates increased relationships with developing countries and the establishment of new joint enterprises in these countries.

Insofar as the dollar market area is concerned, it is desirable to find those sectors where most rapid development is likely in the future. In these promising areas we must try to modernize our active-substance technologies, to automate the manufacturing processes, and to increase our competitiveness. The research efforts must be concentrated in these areas, in concert with marketing work and foreign-trade requirements. In addition to increasing production, we must concentrate our efforts toward more economical operations and toward ensuring our international competitiveness. In order to meet these goals, we must reach the productivity level of our most advanced competitors.

The development trend and investment strategy of the Hungarian pharmaceutical industry must therefore follow these major guidelines:

- Our manufacturing facilities must be made capable of quick adaptation to the needs of the international market, so that any needed changes in the product assortment can be accomplished expeditiously;
- Our investments must increase productivity to such a degree that it comes up to the most advanced technological level;
- Our investments must facilitate the favorable industrial implementation of the results of the innovation.

In the course of the modification of the product structure, we must reduce the number of preparations, and we must promote the finished and packaged pharmaceuticals since these can be manufactured in the most profitable manner. This endeavor can be assisted by manufacturing on the largest possible scale and by increasing the capability of the finishing and packaging equipment.

Thus, we will build between 1981 and 1990 new antibiotics-producing and synthesis plants, and we will also build new drug-finishing and -packaging facilities. New locations are primarily needed for the establishment of the antibiotics-producing facilities. These plants will provide additional capacity and will ensure that the conditions of the GMP [expansion unknown] are met by the industry sector.

Examining the current state of the Hungarian pharmaceutical industry and the goals that it has set for itself, the industry sector moves forward toward the turn of the millenium with confidence that it will further advance its valuable traditions and will further improve its international reputation.

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ROLE OF HOUSING COOPERATIVES DESCRIBED

Budapest NEPSZABADSAG in Hungarian 28 Apr 81 p 3

[Interview with Jozsef Pal, head of the SZOVOSZ (National Federation of Cooperatives) main department for housing cooperatives, by Pal Gulyas: "How Much Can Housing Cooperatives Do?"]

[Text] Experience shows that uniting into cooperatives is the most advantageous way to increase the extent of housing construction and maintenance using private resources. We talked about this with Jozsef Pal, the head of SZOVOSZ's main department for housing cooperatives.

[Question] In your opinion, what and how large will be the role and weight of these cooperatives in the future for the absolutely necessary improvement of the housing situation?

[Answer] At the beginning of this year about 3.5 million [existing] housing units were on record in this country. According to some estimates, 1.3 million of them are in multi-apartment, [and/or] multi-story buildings; the rest of them are single family homes. Of the apartments in multi-unit, multi-story buildings, 500,000 are owned privately; these are managed by housing cooperatives and condominiums--which actually operate in accordance with the basic principles of cooperatives. Thus, almost 15 percent of the country's housing inventory and 38 percent of the apartments in urban-type buildings are in this category. The housing cooperatives, operating as independent legal entities manage 205,000 apartments. In recent years, the number of these apartments increased by 16,000 to 18,000 units per year--which is 20 to 22 percent of the new apartments. Their number and ratio continues to increase every year.

The housing cooperatives in the coming years, are preparing to manage all apartments themselves which belong to them and they also want to maintain the majority of their buildings. They will enter into long-range contracts with other organizations to do the remaining work, primarily to perform modernizations. As far as the future is concerned, it is also important for cooperatives to be able to be formed to maintain apartments which are modernized and sold within the framework of the urban reconstruction of the old sections of cities. By the way, the cooperating parties--and this is completely justified--require familiarity with their apartments even before construction is completed, and the ability to perform quality inspection [of the construction] when the apartment is technically turned over to them.



Cooperatives which also take care of their own apartment construction have been operating in this country for 10 years. Their role is increasing. So far they have had over 30,000 apartments built, and are already providing almost 30 percent of the annual increase in the number of cooperative apartments.

Cooperatives having apartments built for them can open up large reserves--such as the abilities of their members, and the cooperation of their [enterprise] enterprises. Our aim is for them to become even more popular than they are now.

#### Worker Housing Construction

[Question] The campaign for the construction of worker housing has a history of many years. Has it fulfilled the hopes attached to it? Have the obstacles not made a fuller development more difficult? What should be done for of faster and more reliable progress?

[Answer] It has become a nationwide practice for enterprises to make loans to their workers from their housing construction funds and to offer other types of assistance for land preparation and cooperative [housing] construction. In addition to this, they also help by lending their transport equipment and construction machinery, by providing used materials, and even by supplying some skilled labor. If one adds to this the personal cooperation of the members, then it is quite obvious that this currently represents the cheapest form of housing construction.

Even though most of the housing cooperatives enjoy the support of enterprises, we still cannot be satisfied: barely 20 percent of their budgets designated for such purposes is spent on cooperative housing construction. Instead of participation in the project from land preparation to the acceptance of the completed apartments--which takes 3 to 5 years--, the enterprises prefer to purchase turn-key apartments. Cooperative housing construction would be helped if the enterprises spent a higher proportion of their support assets to prepare [land for] cooperative construction.

[Question] In the last few years there have been housing cooperatives not only in Budapest and in other cities, but also in the villages. Can we trust in this process gaining strength?

[Answer] Even now, one-fourth of the apartments built by the housing construction cooperatives are built in villages. For the most part, the support for these cooperatives comes from agricultural producer cooperatives, state farms and forestry management cooperatives. The population demand for creating cooperative housing developments is gaining strength nowadays especially because the installation of public services, the purchase of construction materials, the operation of machinery and transportation equipment increasingly requires joint efforts. Our housing policy has also recognized that instead of increasing the population of the cities, it is more economical to strengthen the ability of the villages to hold on to their population. The construction of modern cooperative housing must also be helped in the villages.

[Question] It is common knowledge that the housing cooperatives are struggling with many problems. What is the reason for this, and how could they rid themselves of the various difficulties?

[Answer] The work of the housing cooperatives can be successful only if the conditions necessary for building and maintaining housing exist. Without these, even their self-sufficient activity cannot grow. Some of the conditions have to be provided within the framework of the housing construction and maintenance programs of the [local] councils.

For example, land with public utilities is one of the most important conditions for building cooperative housing. The council which does not give anything to the cooperatives from its land development fund, (unfortunately, there are many such councils) can hardly be said to be acting properly. Providing sewers causes the most problems for housing cooperatives, and also increasingly in the villages. Hardly any adequately "tested" wastewater treatment technology and equipment exist today to provide reasonable solution for the smaller housing developments. It also has not been determined which organs should operate them, and for what remuneration.

There is much debate about suitable construction technology and choosing the implementation plans. The overwhelming majority of the ones offered are still such that they can be implemented only by well-equipped enterprises, practically down to the last nail. Recently, more and more prefabricated house factories and contractors have been entering bids for the construction of cooperative housing. Nevertheless it must be investigated whether people with average earnings can afford to take on the construction costs, and whether it is possible for the members to take part in the construction with their own work.

#### House Management and Maintenance

The cooperative solution to house management and maintenance also requires the appropriate set of conditions. It is a noteworthy achievement that organizations of cooperatives, employing specialists, are managing one-half of the cooperative apartments. However, it cannot be denied, either, that most of the time the offices, shops, and storage facilities are located in spaces built for other purposes--basements, cellars--and often in ways disturbing to the residents. The working conditions are bad. The EVM [Ministry of Construction and Urban Development] and other directing organs have already published their plan guidelines and instructions which also include these facilities at the new housing developments. The help of the councils is also needed for implementing these.

The cooperatives have many problems financing their activities, even though they make up significant financial funds. For example, the nationwide sum placed into renewal funds approaches half a billion forints. The demand is increasing that these be able to be used with fewer restrictions than is the case at the present time.

[Question] And what could the housing cooperatives do themselves to be more successful.

[Answer] A lot. Even when the necessary basic conditions exist, they can operate better only if their organization and bylaws are well designed, if their members and elected officials know their rights and obligations, and if their business procedures, property protection, and control are well organized.

Today the cooperatives are still pretty well divided up. The guiding principle for creating cooperatives of the proper size can only be that without infringing on

cooperative, ownership rights, and decisionmaking authority of the members, we should promote the creation of cooperatives and their associations of such size that they can set up the appropriate work organizations--employing experts--to take care of their tasks.

The associations in the megyes and in Budapest have very significant jobs organizing and providing services to the housing cooperatives to strengthen them. Their control activity has a more and more favorable influence on property protection and on following the legal order of business procedures. There are problems, especially in the smaller cooperatives with bookkeeping, control discipline, and accounting.

#### Key Factor Growth

[Question] The housing cooperative form, and the framework and solution which promote them for people, are advantageous for the national economy. Do the legal and financial regulations now in effect provide sufficient incentives for housing cooperatives to grow in accordance with their social significance, and to gain more ground?

[Answer] It is obvious that the housing cooperatives can keep growing significantly under the present set of regulations--if the right conditions exist for them. We are also interested in modifying the regulations. In the residential developments we usually find buildings next to each other which contain state-owned rental apartments, and cooperative apartments, respectively. Often, people with the same or barely differing incomes live in both, but their square footages differ greatly. The housing cooperatives approve the consideration of social policy benefits, according to the individual's and the family's circumstances. But at the same time they also consider it fair to bear equally the actual construction and maintenance costs. If our principles were generally accepted, the advantages of involving private resources, and of joining forces in cooperatives would also prevail more vigorously.

## DIFFICULTIES OF 1981 SOCIOECONOMIC PLAN DISCUSSED

Warsaw GOSPODARKA PLANOWA in Polish No 2, Feb 81 pp 61-68

[Text] Work on the 1981 National Socioeconomic Plan proceeded under very difficult conditions. The country's economic situation, which had for several years become increasingly unbalanced, entered a critical stage in 1980. The first forewarning was the breakdown of power and transport during the hard, but certainly not unique, winter of 1979. The effects of this breakdown, aggravated further by crop failures, decline in management efficiency and the unprecedented increase in indebtedness, have not been overcome even by the end of the year. For the first time since the war, the generated national income not only did not increase, it fell by over two percent.

The 1980 Plan was the first plan in which the money-market situation could not be balanced, even if only formally, leaving it to be resolved during the year. There were also many strains in other areas of the plan, particularly in foreign trade, investment and supply. By midyear the plan had to be revised and one of the targets of the revision was more rapid improvement in foreign-trade turnover balance at the expense of further deterioration in the money-market situation. This was then considered necessary both because of the 1980 current payment requirements as well as high debt accumulation in 1981.

Last July, i.e., during the period in which the decision to revise the plan was made, some new events occurred in the country's socioeconomic life, events which led to fundamental changes. The nature and aims of these events were incorrectly judged by the leaders then in charge, which for a long time had believed that tensions could be alleviated by granting pay increases and other concessions in the field of incomes and living standards, although, in the existing and foreseeable market situation, this was an economically intolerable solution. The first wage decisions released a difficult-to-stop avalanche of successive demands which did not take into account the true state of the economy, known then only to a relatively small group of specialists who had access to unpublished information. The rapid granting of wage increases widened the consumer-goods gap, which had occurred as early as 1980. To a large degree it also predestined the growth for the current year, especially since the natural result of accelerated growth in wages was also an increase in the amounts of social benefits (mainly pensions and annuities) and in many procurement prices which were important to ensure adequate increases in farm incomes.

The agreements made in January-March also had an important effect on formulating targets in the 1981 Plan. The agreements abolished the requirement of a four-day work week and Sunday work in coal mining and promised a five-day work week. As a result, in the last few months in 1980 much less coal was mined (final



figures for last year showed that 193 million tons were mined, compared with 201 million tons in 1979), also making it necessary to take this into account in the plan for the current year.

The awareness of the planners, and hence the plan assumptions, were also affected by the worsening situation in harvesting during the autumn months. Because of poor weather, the chances for harvesting better crops of sugar beets, potatoes, vegetables and fruits decreased from week to week. The final figures showed that crop production dropped by over 15 percent in comparison to 1979, which was not the best either. The extent of breakdown in crop production is revealed by the fact that total production in 1980 fell below the 1972 level, and crop production even below the 1966 level. This was one of the reasons why last year's revised plan could not be implemented, for it was now necessary, during the final period of last year, to restrict export of farm products and also to begin to import them. The same policy had to be continued until at least the first half of 1981, not only because of domestic food requirements but also because livestock breeding had to be assisted with increased imports of grain and fodder.

The industrial production situation during the period of plan development was not clear. After the strike movement reached its highest peak and production losses were greatest in August, a distinct improvement took place in September, although the production level reached was about three percent lower than the year before. It was assumed that for some time yet it would be difficult to reach the planned production growth rate. The consequences of breaching many co-production ties had to be considered, the consequences of the drop in coal mining (which had its greatest effect on the drop in export, but also partially affected supplies for industry), and also the intensifying strains in implementing a number of future material balances. Nevertheless, there was hope that these adverse effects would be gradually overcome and that industrial production would stabilize before year's end, which, in view of 1981 production targets are reasonable--should favor the rhythmic implementation of production tasks this year.

Analysis made in the initial stage of the work on the plan indicated that material supply potentials were a decisive factor in 1981 production targets. These potentials are, in turn, assigned in relation to domestic materials and raw materials mainly to the attainable level of coal mining, on which the country's fuel-energy balance depends, hence also the energy-intensive production of the remaining basic and raw materials. Insofar as raw and other materials imported from socialist countries are concerned, the supply level is determined by coordination and long-term agreements. The reciprocal character of these agreements cannot be overlooked, a reciprocity which commits us to make deliveries on an appropriate scale. Insofar as raw and other materials imported from capitalist countries are concerned, supply potentials are mainly a function of the ability to obtain new credits, since in view of the accumulation of so-called rigid obligations, i.e. interest and installments on credit, all receipts from export must go for payments.

After analyzing all of these factors, various plan concepts appeared feasible. The consequences of the individual variants had to be, above all, assumptions on coal mining and foreign trade with capitalist countries, and particularly assumptions on raw materials imports from these countries.

It will not possibly, however, to make any great changes in assumptions on the money-market situation. Obviously, this was the rapidly growing personal incomes will

produce a large increase in demand, aimed largely at food and other consumer goods. Yet farm production last year was not enough to fulfill domestic food demands, and the payments situation does not allow us to make up the deficits by increasing imports. Particularly because of the drop in livestock population and because of disastrously low production of sugar in the last sugar-beet processing period (one third less than in the previous year) we will be able to supply the market much less meat, animal fats and sugar than last year. For various reasons we will have to supply the market with clothing and footwear in the same amounts as in 1980, or with lesser amounts of all types of textiles. This means that in comparison with last year there will be less merchandise available and that the pressure for food and other basic necessities will be greater.

In the current socioeconomic situation such a market system is, in practice, hard to avoid. The size of society's purchasing fund is basically determined by agreements that have been concluded and by decisions made to execute them. The amount of supply, in turn, depends mainly on production potential (although, of course, also on export requirements) and the principle determinant of this potential is--as has been stated--the supply situation. That is why it was difficult in the plan to come even close to balancing the supply of goods with purchasing power. The matter of undertaking further actions aimed at alleviating market difficulties and neutralizing excess purchasing power was not resolved in the plan, but will require separate solutions during its implementation.

The variants for planned coal production fluctuated from 172 to 188 million tons. The draft plan submitted to the Sejm by the government projected that 188 million tons would be mined during the year. If it were possible to implement one of the formulas for the "five-day work week for the miners with a six-day operating week for the mines," this production level would require that each day an average of 616,000 tons of coal would have to be produced. This could be attained with a relatively small increase in labor productivity. If, however, another formula that has been advanced--a five-day work week and work on Saturday as an overtime day (with reduced working hours)--is applied, then daily production during the first five days of the week should be about 650,000 tons, and on non-working Saturdays, about 300,000 tons. This, based on experience, is a far more difficult task, but with good work organization and much greater productivity, it also is possible. In the end, however, the opinion prevailed that production tasks formulated in the plan must be attainable during the obligatory working time (not treating work on Saturday in a special way). Thus, the directive-type level of production was defined at 172 million tons (which requires that about 650,000 tons daily be produced), and furthermore it was decided that it was feasible and desirable to obtain another 16 million tons of coal by voluntary work on normally non-work Saturdays (i.e., approximately 300,000-400,000 tons each Saturday).

It is to be noted that not only the directive-type task in the plan will be accomplished but also the task regarding the feasibility and attainability of the remaining elements of the plan, including the balance, were allowed to remain in the version that provided for 172 million tons. From the standpoint of accepted planning principles, the balance of the plan (172 million tons) is a directive-type balance, and not a target-type balance. The balance of the plan is fixed by directive, and not by target. The only possible method--even if that method is supported by an opinion--

Nevertheless, this solution was accepted with full awareness, and the deciding motivation was the knowledge that a reduction in coal production to below 188 million tons would require a correspondingly large decrease of production in many branches of industry and also a decrease in exports and supplies for the domestic market. The attainment of this level of production depends largely on the feasibility of stabilizing the economy and accomplishing the remaining tasks specified in the plan. But failure to attain this production level would mean a further and much deeper retreat in many sectors and would mean that another plan would have to be prepared, starting from another base.

It is also very important to the implementation of the entire plan that the envisaged amounts of new foreign credits be obtained. Because payments of our debts due in 1981 would absorb all of the planned foreign-exchange receipts from exports, we are now conducting talks with our principle creditors on refinancing our debts, i.e., paying off the amounts now due with new credits obtained on more favorable terms. This would also provide finances for the imports envisaged in the plan. If, on the other hand, means of payment indispensable for planned imports cannot be obtained, curtailment of imports would also mean curtailment of production supplies, thus reducing production levels.

The coal-mining production targets and the import targets that have been specified in the plan at some risk, have made it possible to construct a plan which will allow us--if implementation is good--to make it through 1981, a very difficult year for the economy, in a way that will ensure attainment of the plan's basic social goal: to protect the living standard of the people with the lowest incomes. In our very difficult economic situation, sacrifices on the part of the better-off segment of society cannot be avoided.

The question may arise: Was it necessary to formulate a plan for this year which carries with it a risk? Would it not have been better to prepare another plan, one that provided for a lower, less stressful level of coal production, or a lower level of imports, involving correspondingly less newly incurred indebtedness? Of course such a plan could have been formulated. This would have been, in any case, a no less difficult plan, one probably even harder to balance. If less coal were supplied to the economy, and raw and other materials had to be imported, a lower level of all industrial production would have had to have been planned, and also smaller deliveries to the market and for export. This would also have been a plan by which it would be difficult, to the now-planned degree, to safeguard the present standard of living and to implement such a number of measures in the sphere of social consumption. It was precisely for these reasons that the undertaking of more difficult tasks was regarded as feasible, with the full knowledge that not everything may be accomplished.

There is considerable indication that the likelihood that not everything may be accomplished to a particularly large degree depends on the level of coal production, on which the domestic fuel-energy balance is largely based, and on which the fulfillment of our international agreements depends, and also our import potential. In connection with the measures in stabilizing the sociopolitical situation and thus also economic life, it is impossible to find a formula that will ensure the highest possible level of coal production, then the likelihood of accomplishing the plan goals will increase correspondingly. In first place among these goals is maintenance of the export situation. Then, with special attention to satisfying food requirements and to ensuring that the groups of people least well-off will retain their income levels.

Implementation of all decisions made in recent months on wage increases and monetary social benefits and the promised decisions on higher purchase prices for farm products should, during 1981, increase personal incomes by almost 18 percent and the wage fund by 16 percent. The average nominal wages in the socialized economy, which in 1980 were approximately 5,750 zlotys a month, according to the plan should increase this year to approximately 6,500 zlotys; and the lowest wages, which last year were 2,000 zlotys, have now been fixed at 2,400 zlotys. The general trend of the plan and the current wage policy is toward narrowing the spread in wages and resisting the emergence of so-called wage spirals.

Monetary social benefits are growing faster than wages. The State's expenditures for this purpose are budgeted at over 250 billion zlotys, which is over 29 percent more than in 1980. The average pension and annuity, which in 1980 was over 2,700 zlotys, should increase this year by over 20 percent, clearly exceeding 3,200 zlotys.

The social reaction to increases in monetary receipts will be governed by market shortages in a number of items, including basic necessities. As early as the second half of last year, as a result of serious shortages in market supplies, and particularly as a result of crop failures, food items became scarce and there was a large increase in prices of many of these items, increases that were felt especially by pensioners and annuitants and low-income working families, i.e., by households in which a large share of income is allocated for food purchases. That, then, is why safeguarding the living standard of poorer families demands that special care be given to maintaining the real incomes of these groups.

The plan assumes that supplies of market goods this year can only barely approximate those of last year. The food supplies are expected to be especially low, below the 1980 level. This will mean lower supplies of meat, animal fats and sugar. It is estimated that market supplies of meat and meat products will be lower, in relation to 1980, by about 400,000 tons, i.e. by almost 11 kilogram per each inhabitant, which is why a rationing sales system is being introduced. It is estimated, however, that meat consumption per person will drop at a lesser rate, namely from approximately 72.8 kilograms last year to approximately 65 kilograms per person this year, because the figure for market supplies does not cover supplies for hospitals, resorts, and other so-called collective consumers, nor does it include free-market sales. There will be a definite increase in farm slaughter. The one-third drop in sugar supplies will greatly reduce production of food items with a high sugar content and temporarily, until a new sugar-beet processing period, will reduce the sugar ration. But a significant growth in other food items is planned, such as fish, eggs, milk, cheese, flour and cereals. There should be a large improvement in market supplies of rice, refined vegetable fats, tea and lemons.

The plan reflects about a six percent increase in industrial consumer products and about seven percent in non-consumer items, mainly building materials and farm production means.

Due to rapid growth in social services to the people by units of the socialized economy, namely of about five percent, and combined with craft services and other non-socialized units, about seven percent. Rapid expansion of services will be enabled principally by the availability of materials and the number of service



Despite the very difficult economic situation, the 1981 plan contains a number of measures aimed at correcting the present neglect in such fields as health protection, education and upbringing, and culture and the arts.

In health protection the shortages in a number of medications, and also dressing materials, disposable syringes, etc., has been very troublesome since 1979 and has become more acute in the past year. The 1981 plan aims to alleviate this shortage, projecting a 12 percent increase in medical supplies and an over one-fourth increase in imported medicines. Despite reductions in investments affecting the entire economy, investments in health service enterprises will be continued and efforts will be made to obtain much better results than in previous years. For example, the number of beds in general hospitals and clinics, which in 1980 grew only by 1,300 and reached 200,500 at the end of 1981, should reach 221,500. While there was a gain of 14 rural health centers last year, this year's increase should be twice that amount. Care for the chronically ill and incompetent, conducted by the Polish Red Cross and the Polish Social Assistance Committee, will be greatly expanded. For the first time, this activity, which up to now has been financed from the funds of both these institutions, will benefit from rather substantial subsidies, the sizes of which will depend only on the organizational and cadre capabilities of both organizations.

In the field of education and upbringing some long delays have occurred recently in the construction of schools in new housing communities and in the gmina [rural] portrait consolidated schools and also kindergartens. The Sejm Commission for Education and Upbringing estimated the immediate needs of this construction at approximately 150 schools and 300 kindergartens, which greatly exceeds the current economic potential. Nevertheless, the 1981 plan provides for continuation of all education investments and furthermore, the start of construction of 64 community schools, 15 color schools and 73 kindergartens.

The number of children attending pre-school child care centers should reach almost 1,000 thousand, compared to 1,223 thousand at the end of last year. This means that this year almost 51 percent of children three to six years old will be covered by pre-school care, while in 1980 the figure was not quite 49 percent.

The percentage of graduates of elementary schools going on to further study in higher than elementary schools should remain at about 98 percent. With a somewhat larger number of students finishing elementary school, the number admitted to secondary schools will remain about the same. There will be about a four percent reduction in the number of first-year students in the vocational schools--beginning and intermediate.

The number of students accepted for day school will also remain the same. As a consequence of the last five-year plan's policy of systematically reducing the number of new admissions, the number of high school graduates will drop from 84,000 last year to 77,000 this year. The living conditions for students will gradually improve. The percentage of spaces in student residences in relation to day school students will increase from about 64 percent last year to almost 66 percent, and the number of spaces in student mess halls from 12.6 to 13.2 percent, respectively.

In the field of culture and the arts, the plan places especially large emphasis on publications. Allocations of paper for publishing are to be increased by 20,000 tons,

i.e., about nine percent. Total circulation of newspapers and periodicals, which was approximately 3,530 million copies, should increase to 3,700 million copies, i.e., six percent. Combined yearly publication of books and pamphlets, 156 million copies last year, will increase to 190 million copies, over 21 percent. This means that the number of books and pamphlets published per each inhabitant will increase from approximately 4.4 to 5.3. Definite steps will also be taken this year to put publishing policies in order and to increase publication of books that are valuable and in demand, particularly fine arts literature.

It was difficult to set targets for housing construction. For several years actual housing construction figures were treated incorrectly in the statistics. This occurred because of the rule previously in effect--that the results of a specific year also include dwellings accepted by the Receiving Board at the beginning of the following year. Initially, mid-January was the final date for inclusion in the previous year's figures, which was explained as being necessary to give the Receiving Board the necessary time to accept dwellings finished in the final days of the year. In time, however, this period was lengthened to the end of January, and in some cases even beyond that. This was caused also by finishing, in the following year, dwellings that had been officially reported as finished the previous year. The number of such dwellings grew from year to year and according to determinations of the Central Office of Statistics in 1980, approximately 49,000 dwellings were made available for move-in that had been officially declared as completed in 1979. Very simply, the work done on these dwellings in 1980 to a large degree consumed the production capacity of the construction enterprises, which meant that current tasks suffered corresponding delays. Irrespective of this, however, there was also a breakdown last year in implementation of the housing construction program due to inadequate land development for new communities and to organizational weaknesses in the constructing enterprises. As a result, instead of the planned 340,000 dwellings, which later in the July revision was decreased to approximately 290,000, only about 170,000 were built (about 220,000, if the 49,000 that were counted with the previous year's figures are included).

Under these conditions, it was necessary to define a plan for housing construction at a level definitely lower than in previous years, but realistically, in accordance with actual land development and actual construction capacity. It is quite interesting that the provincial authorities who had in previous years constantly strived to maximize the amount of housing construction in their localities, now--in several cases--suffering work on the plan themselves proposed that the targets be reduced and that the means saved by the reduction be used to expand the work on land development and on preparation of so-called raw-state areas for construction in later years. As a result, the plan provides that in 1981 a total of 243,000-248,000 dwellings will be made available for move-in. In socialized construction, 193,000 dwellings would be turned over, i.e., over 15 percent more than last year, and in individual construction, 50,000-55,000 dwellings, i.e., an amount close to or not much larger than last year.

In housing construction much greater emphasis than heretofore will be placed on construction of communities, i.e., to turn over, along with dwellings, community centers, service and socio-cultural establishments. In view of the previous neglect in this field, at least several years will be required to correct the deficiencies.

Individual construction will be supported more concretely than heretofore in the form of state land sales, increased credits (from approximately 2.8 billion zlotys last year to 4 billion zlotys this year) and increased supplies of building materials. However, better results in the form of more dwellings completed for use will not be apparent until 1987.

The 1981 material production targets were set, as has previously been mentioned, principally on the basis of availability of materials. In many branches and sub-branches, production capacity, to a greater or lesser degree, will not be fully utilized.

Production goals for the entire industry were fixed at 3,107 billion zlotys, which at the time the draft plan was submitted to the Sejm early last December, corresponded closely to the then-forecasted accomplishment of 1980 tasks. In the end, however, last year's level of production was somewhat higher, and so this year's planned tasks are over one percent larger than the actual 1980 results. This is a resultant quantity, comprised of at least four various trends in different branches and sub-branches.

A large reduction in production in the farm-food industry is projected, as the result of last year's bad crops and the consequent lower supplies of farm products for commercial processing. Production will also drop in coal mining, as has already been mentioned, in ferrous metallurgy, in most nonferrous metals, and also in the cement industry. This is chiefly due to less coal extraction and the accompanying drop in coke production, as well as to a reduction of fuel deliveries to the cement industry. It is also due to the shorter work week in nonferrous metal ore mining, which adversely affects production of copper, zinc, lead, silver, etc.

Some production decline is also expected in those branches and subbranches of the processing industry that produce non-exportable capital goods or have a limited export capacity. In these subbranches, which include the machine tool, construction machinery, railroad rolling stock, and cable industries, and partly also the automotive industry (as concerns special-design heavy vehicles and delivery trucks), production quantities are adapted to the investment program, and partially to the supply potential. Insofar as supplies are available, steps should be taken in plants of these subbranches to produce consumer goods.

At least the same level of production, or an increase, is planned in the processing industry that produces consumer products and means of production for farming; for example, in the consumer goods industry, in woodworking, in certain subbranches of the chemical and machinery industries, and in small-scale production. In these subbranches, as a rule, the production growth rate should be greater as reductions in supplies of raw and other materials become less frequent. For example, artificial fertilizer production should increase by over seven percent and production of plastics by about 12 percent, etc.

Five production targets for 1981 assume a total production of 613 billion zlotys, i.e., about 5.5 percent more than actually obtained last year.<sup>1</sup> Crop production

Higher figures were given in the Sejm resolution on the plan, but they were calculated in relation to the forecast of 1980 results, which as concerns crop production, proved out to be too low.

this year should increase by over 18 percent, and animal production, it is now estimated, may decline by over 7 percent.

At first glance, the high crop production growth rate that is planned may arouse some doubts, but actually all it means is that a level of production should be achieved that is somewhat between that which was attained in 1978 and 1979, after a certain decline in 1979 and after last year's disastrous crop failures. Assuming average weather conditions for 1981 and considering the planned increase in fertilization, some reasonable assumptions were made in the plans as to crop yields--more modest than in last year's plan--which gives hope that the results will be achieved.

The situation in animal production is worse. Due to fodder problems, the cattle population in peasant farming at the beginning of last year decreased by almost 700,000 head. There was a nearly 2.2 million drop in pigs, and even large decreases are expected in the next few months. As a result, production and purchase of slaughter animals will decline and there will be a large shortfall in supplies of meat and meat products. But procurement of milk and eggs should be somewhat higher than last year, especially during the second half of this year. Maintenance of breeding stock, particularly cows and sows, is important in animal production, for it is the basis on which animal husbandry can be rebuilt in the coming years. Because of the lower level of procurement planned for this year, the Minister of Food Industry and Purchases has been charged with markedly improving the manner in which products and animals are received from farms and procurement centers in order to eliminate losses caused by excessive holding of animals at the centers or in transport. Transfers of slaughter animals during transport are to be reduced and better use is to be made of local slaughter facilities.

The plan provides for improvement in farm land use, mainly by making it easier to transfer land to well-managed individual peasant farms, ensuring that the land will be used efficiently. The agricultural self-government will share in the decision-making on land transfers for farming. Considerable improvements in supplying peasant farms with means of production are envisaged. In the farm machinery industry, changes are being made in the structure of production. The production of tractors and equipment for small farms will be greatly increased. The entire increase in artificial fertilizer supplies will be given to individual peasant farms.

Forestry should improve this year with more efficient management. Less felling of timber in State forests is planned. The amount of timber removed recently has in fact exceeded the amounts required for so-called controlled forest-thinning. Thinning of the forests is an important task. This includes removing the deadwood caused by the recent spread of a pest--the *lymantria monacha* moth. The moth will be fought by means of a very extreme chemical spraying program, covering 1.8 million hectares.

Transport hauling tasks should increase relatively slightly this year, mostly about 1 percent in the specific types of transport. A higher increase, exceeding 10 percent, is to be attained only by inland waterways and coastal transport, which has not increased since the recent years. The remaining branches of transport, although still not playing a large role, must rise. Improvements must be made in the structure of transport stock, and transport means must be utilized more efficiently. This means that the rules for distributing hauling tasks among the various branches of transport must be reviewed. Changes in the structure of



foreign trade will reduce cargo hauling by the merchant fleet and cargo transfers in harbors, which may make it possible to develop through-transit haulage by land and sea, in support of our neighbors.

The volume of assembly-erection work in the national economy will decrease by over three percent, as compared with last year. Works covered by the investment plan will be cut by over seven percent and the scope of repair jobs will increase by over three percent. Along with the reduction in production tasks in construction, there should be an improvement in organization and production facilities, an improvement in material scheduling, more systematic and efficient operation aimed at improving the materials economy, and more efficient utilization of construction equipment. In construction auxiliary plants, production of small-scale components for individual-dwelling and farm-building construction will be expanded.

The plan's aim to protect consumption levels requires, as a consequence, a marked decrease in investment outlays, to the degree that the reduced capability of the entire economy will permit. According to analyses made during the work on the plan, the permissible level of investment in the national economy may be 535 billion zlotys, including 461.5 billion zlotys in the socialized economy, i.e., about 17 percent less than last year. In reallocating this sum, it was assumed that the reduction in investment will least affect housing construction and land development and implementation of the most critical enterprises in health protection and education. Correspondingly large reductions will be made in investment outlays for machine production, but there will be a large increase in investment in individual farming and in branches of the consumption industry, particularly in food, leather, clothing and wood.

Continuation of large investments in heavy industry is, for the near term, useless, in view of the limited supplies of raw materials and the already unutilized production capacity.

The considerable extent of housing construction and farm investment, and heavy expenditures in industrial investment, will change the structure of investment outlays. If construction-assembly work is reduced by about 7 percent, as has been mentioned, outlay for procurement of machinery and equipment will drop by about 22 percent, which will include an approximately 24 percent reduction in imports of machinery and equipment from capitalist countries.

The foreign trade plan envisages that this year's exports to both socialist and capitalist countries will remain at a level close to last year's. From the economic standpoint, of course, a larger export growth would be desirable. Unfortunately, last year's poor crops forced large reductions in farm-products exports and the larger need of mining production restricted the export of coal, copper, silver, iron and steel products and other basic materials. However, the plan's projections assume that all these losses would be completely made up, despite the fact that the level of all industrial production would reach a level close to that of last year. This would be achieved by increasing exports of remaining goods (excluding raw materials and farm products) by about 5 percent, including over 12 percent to capitalist countries.

It should be noted that during the current year imports would drop significantly, about 3 percent, due, in large measure, to a big reduction in investment in construction. This should then improve the balance of trade turnovers with the socialist countries, mainly with the Soviet Union, predicated on our receiving credit assistance in the form of a number of raw materials and farm products.

Just as heretofore, exchange with CEMA countries, now about 52 percent of total turnovers, will continue to play an important role in foreign turnovers. The joint-venture agreements, covered in the Council for Mutual Economic Assistance operations programs, will continue to be responsibly implemented. The specialization and co-production agreements, particularly, will be implemented and expanded, and the successive tasks of the long-term, appropriated programs concerned with food management, production of consumer goods, and transport, will be introduced.

The problem of employment in this year's program was solved in a new way, as compared with previous years. Although the tables of organization established in the budget were retained, employment limitations in economic units were removed. The employment level in these units is now controlled indirectly by means of the wage fund. The size of this fund is determined according to the assigned production tasks, and the enterprises are free to manage this fund. Furthermore, they can take all the money saved by reducing employment and use it for wage increases for the remaining workers. Thus the employment plan on a national scale has changed and by directive has actually become a forecast on how the enterprises will conduct themselves under the new conditions. Lack of experience makes it difficult to predict the accuracy of this forecast. Nevertheless, we can assume that we are facing large dislocations in employment. In particular, we see large employment reductions in construction, and also--not as a result of the new mechanism, but of a decision--in the administration of the State and the economy.

In summarizing the plan as it concerns material production, we must say that--outside of agriculture--no large increase in volume of production, as compared with 1980, is envisaged. Under these conditions, the generation of the national income will depend mainly on management efficiency. Progress in this area in 1981 will not be simple. The decisions on wage increases will greatly increase labor costs. We know also that high fixed costs, particularly those connected with depreciation of fixed assets, will have to be incurred, despite that fact that in production not all sectors and branches will be able to take advantage of it. But an attempt will be made to reduce material costs in industry by 1.6 percent, and in construction, by 1 percent. It is estimated, however, that this will not be enough to offset the reduction in other costs, and as a result, a large increase in net output is planned only in agriculture, while in the remaining sectors it may remain at last year's level, or lower, particularly in industry and construction.

We must expect, therefore, that also in 1980 the generated national income will be lower than the previous year, and may be in the 3-4 percent range. In view of the projected improvement in foreign trade balance, the national income for distribution should drop a little more. The natural consequence of this should be both a reduction in investment volume, as well as in consumption level.

However, the plan's assumption were formed in such a way that the entire burden of the decrease in national income, falls on investment, whereas it is expected that consumption, both from personal income as well as from other sources, will remain close to the level attained in 1980. This is the most interesting feature of the 1981 plan. It expresses the aim that, to the maximum possible extent, the country's economic situation will permit, the following objectives will be attained:

— to preserve society's present standard of living and to surmount the

the socially very acute delays in the fields of housing, health protection and social welfare, education and upbringing, and culture.

-- Second, to work so as to gradually restore balance to the national economy.

The task of restoring balance could be accomplished more quickly and more effectively were it not subordinate to the primary objective of preserving the standard of living. In similar situations it is almost a rule that society must bear at least part, if not all, of the costs of extricating itself from such a difficult situation. The 1981 National Socioeconomic Plan is an attempt to solve the problem differently and to come out of the impasse by the method that is least painful to large numbers of people. Does this attempt have a chance to succeed? The following months will show, for doubtless there already is a great risk that instability in production, the inability to fill production quotas in the mining industry, insufficient exports, making it necessary to reduce imports, or other factors, may rule out this chance, thus making it necessary to revise the plan.

Under these circumstances, a great deal depends on how rapidly production recovers, on how efficiently scarce production elements are utilized, on skilful management at all levels, and more than ever before, on the sociopolitical mood in the country.

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## ROMANIA

### NECESSITY OF ECONOMIZING RESOURCES, AVOIDING WASTE STRESSED

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[Article by Dr Radu Ciurileanu, Director general in the Ministry of Finance: "A Party Spirit in the Promotion of a Policy of Economizing"]

[Text] In the context of the objectives and tasks stemming from the sole national economic-social development plan for socialist Romania in 1981, the first year of the new five year plan and a new stage in the creation of a multilaterally developed socialist society, there is special importance in the management of material and financial resources with a maximum of efficiency, the strict conservation of these resources and the rational use of society's funds.

The current nature and significance of these problems were once again powerfully pointed out at the October and December 1980 plenary sessions of the party's Central Committee. The directions and tasks established at that time constitute a broad and mobilizing action program for all party and state organs and all the workers in order to carry out the 1981 state plan and budget, to economically and socially develop our country and to systematically improve the general welfare of the people.

#### The Strict Conservation of Resources

In our times when on an international level mankind is involved in a more and more difficult confrontation with complex economic-social consumption problems and limits to resources, all countries large or small, rich or poor, developed, developing and poorly developed are forced into practicing a strict policy of conservation and cautiously using the material, financial and hard-currency resources that they have available. Conservation, thus, becomes an objective necessity for economic development and growth. In the end, this means renouncing everything that is useless and unproductive and staying with only the strictly necessary by setting rigorous priority options.

To think, to organize and to make decisions, in a word to manage in a spirit of strict economy represents the proper nature of worker self-management and economic-financial self-administration in the enterprises in the economy. And, all enterprise activity can and must have a systematic, permanent nature so that the general process of economizing can become an essential point of all economic and social affairs.



As Comrade Nicolae Ceausescu emphasized at the plenary session of the National Council of Workers in January of this year, "we must work so that in reality the councils of workers and general assemblies are the expression of the continuing accentuation of self-management and the growth of responsibility of each collective for the proper administration of the resources entrusted to them by the people. Each collective must give profits to society, providing the means for expanded reproduction and continuing development of the economy."

It can be stated with good reason that there are an ever greater number of workers' collectives in enterprises that are obtaining important savings of material and financial resources through initiative and inventiveness.

There are several edifying examples in this regard. At the "Dobrogea" Mining Enterprise, they have obtained an annual savings of 1,025 tons of conventional fuel worth 685,000 lei (using solar energy in the process of pre-drying non-metallic raw materials - chalk, clay and betonite, as well as by making air-tight and insulating the fryers and modernizing the boilers that produce hot water. During 11 months of last year, the unit saved 14.9 lei per 1,000 lei of goods-production, of which 10.6 lei were savings in material costs. At the Giurgiu "Energia" Enterprise, the incorporation into the production process of waste plastics collected from different units throughout the country and in the county, approximately 100 tons of waste, led to an annual savings of 500,000 lei, representing the difference between the cost of one kilogram of raw materials (10 lei) and the cost of one kilogram of raw materials obtained through recycling (5 lei).

The important role played by the promotion of new technology for the most efficient use of resources and the reduction of specific costs is well known. And, in this regard there are notable achievements. For example, at the Galati Shipyard the expanded use of carbon dioxide welding on assembly and construction work has permitted the annual savings of 20 tons of electrodes, and the expanded use of automated output on digital control machinery led to savings of 15 tons of metal. Similarly, by replacing 60 welding converters with welding rectifiers the savings in electrical energy exceeded 50,000 kwh. We can also refer to the Galati "Laminorul" Enterprise which, by improving the technology for rolling stainless steel plate, reduced the specific consumption rate for raw materials (platinum) by 15 kg per ton, achieving savings of approximately four million lei annually. At the same time, by improving the means of indexing the steel strips, the specific consumption for steel strips during shaping was reduced by 137 tons, equalling 500,000 lei. The "6 Martie" Enterprise in Timisoara, a construction enterprise, also achieved savings in material costs of over 600,000 lei by redesigning certain pieces of equipment.

I have merely presented several examples. They are, we think, sufficient to show that the process of economizing resources is practically limitless since the possibilities of the human mind are limitless when it comes to discovering

new ways and means to achieve the purposes pursued under conditions of ever greater efficiency. The conservation of resources and the rational management of raw materials and materials, therefore, require initiative and responsibility on the part of all workers and a party spirit in the organization, management and planning of economic-social activities and in each collective's use at a maximum level of efficiency of that part of the national wealth which society has entrusted to it.

For that reason, actions, measures and initiatives must be continually undertaken that will, in the end, ensure the most judicious management of socialist property. This is so because it can never be said that everything has been done to conserve the resources and funds of society.

#### Firm Actions to Combat Waste

Waste, squandering and loss of society's resources and funds today represent a totally anachronistic phenomenon that can no longer be accepted in any form. And, nonetheless, waste has not been totally eliminated from economic affairs. The oversupply of some types of equipment or means of transportation, the exceeding of all types of consumption standards, the stockpiling of certain valuable materials beyond real needs and the liberal or even illegal use of society's funds are merely several ways in which waste occurs. We will come back to such especially damaging situations for the enterprises and, in the end, for society.

For example, there are still economic units that, despite all the measures taken, are not succeeding in staying within the approved consumption standards, and are exceeding these standards. Within the Rimnicu Vilcea Chemical Combine, for example, the standardized consumption rates were greatly exceeded for some main raw materials, including: by over 2,300 tons (worth 4.6 million lei) above the standardized consumption rate for propylene used in producing octanol and by 720 tons (worth 2.7 million lei) in the consumption of vinyl chloride used in the production of polyvinyl chloride.

In combatting such phenomena which violate the interests of our socialist society, the plenary session of the National Council of Workers strongly insisted upon the need to identify and spread the lowest consumption rates achieved to date and to work with great responsibility to precisely adhere to the established norms. This represents an even more stringent requirement for us since in many cases our consumption rates are much higher than for similar products in other countries.

The firm application by all the units in the economy of the legal provisions regarding the management of fixed assets and material resources and the carrying out of technical-material supply, provisions recently approved by the Grand National Assembly, will lead, without a doubt, to the improvement of the supply process in close correlation with the tasks of the state plan, to the judicious and highly efficient use of material and energy resources within the limits of the approved consumption rates, to the intensification of the recovery and reuse

of material resources and to the optimum use of production facilities. The measures outlined in the mentioned provisions of law will have to be, however, well-known, understood and applied in all enterprises and institutions so that by introducing a strong financial discipline and a rigorous spirit of good management we will attain the desired objective, that of conserving the material and energy resources of the country.

The oversupply of equipment and machinery under conditions where the existing fixed assets are not being used also constitutes a large source of waste of material resources and social labor. A recent analysis conducted by the organs of the Ministry of Finance and the Investment Bank at the Railroad Construction Central revealed the existence of 224 pieces of equipment worth 44.4 million lei that are no longer being used, among other things, because of certain changes that have occurred in the structure of its work. At the Transportation Central, by acquiring in advance certain means of transportation and not completing the normal lifetime before removing certain vehicles from operation, last year it created a reserve capacity of over 1,400 vehicles worth more than 400 million lei.

Unfortunately, the cases presented here are not isolated ones. The analyses and reviews conducted by the organs of the Ministry of Finance show that at some health, cultural and educational institutions there are devices, instruments and diverse other types of equipment that are either excess or not used for diverse reasons.

Certainly, the application of the measures written in the Investment Law approved by the Grand National Assembly creates the conditions to prevent the waste of funds because of the oversupply of certain enterprises. Thus, the obligation is clearly outlined that staying within the plan and achieving the new investment objectives will be accomplished only if the existing facilities and areas are fully used. This measure is capable, on one hand, of more consistently guiding the concerns of the workers councils and collectives in the economic units towards the fullest possible use of existing production facilities, and, on the other hand, by concentrating material and financial means towards shortening the period for completing investments, measures are stimulated that are designed to provide from the very beginning the conditions required to carry out projects under exemplary conditions. It is worth also describing the measure that will provide for the verification of fulfilling the conditions outlined by law in order to approve financing for new investment projects, as well as other such measures whose purpose is to determine maximum efficiency in the use of investment funds and the strict conservation of these funds.

What should also be remembered is the fact that actions to combat waste do not refer solely to phenomena of vast proportions, as some people are used to thinking. Any amount of waste, however insignificant, because of repetition or duplication leads to large damages for society. That is why it is necessary to systematically examine in a critical manner all the processes of supply, production and sales in order to uncover the situations that lead to or can lead to waste and to identify and put into use the practical means of economizing on resources.

Such an analysis was recently conducted by the organs of the Ministry of Finance of the Govora Soda Products Combine, where the consumption of steel plate used in the production of containers needed for the delivery of soda products was exceeded by 172 tons worth 722,000. For the same item, the Oena Mures Soda Products Combine exceeded its consumption plan by over one million lei. Such damaging situation for these enterprises and for the national economy overall was caused to a great degree by the acquisition of the wrong size and thickness of steel plate. The calculations made together with the combine's specialists showed that for 1981 production the current level of consumption can be reduced by 578.8 tons of steel plate worth 2.6 million lei, if only they would procure the steel plate of the thickness and dimensions strictly necessary for the production of these containers.

Since such cases are sufficiently numerous, we would dare to suggest a measure that would, we think, prevent them. Thus, it is the supply departments and organs in the industrial centrals that are the best ones to permanently pursue whether or not the types and sizes of raw materials and materials supplied to their subordinate units are the most appropriate ones for that purpose and their production, intervening whenever it is necessary to avoid the waste of metal, which can occur even in the technical-material supply process.

The reduction of costs, and first of all material costs, also requires great responsibility whenever we are talking about commitments or making payments. Each time it is absolutely necessary to examine with complete attention if there are possibilities to reduce, renounce or delay certain costs, even under conditions where these funds are included in the budget of incomes and expenses.

It is enough for us to point out that this year a reduction of just one percent in the material costs of the social product brings an increase in national income of 13.4 billion lei. During the five year plan of quality and efficiency that we are in, there must be a true "battle" to permanently reduce costs on a daily basis at every place of work.

Without a doubt the achievement in 1981 and during the entire five year plan of certain additional reductions in the costs of production, and first of all in material costs, requires special efforts and close cooperation between technical and economic personnel and financial personnel, as well as an acceleration of the integration of scientific research with education and production. The fact is that only by joint actions by all the parties involved can solutions be found that will ensure the achievement of the desired goal, beginning with the need to redesign and modernize products, to improve production technologies, to put raw materials and materials to greater use and to intensify the use of existing facilities and areas.

In the process of reducing costs, a role of great responsibility is played by those to whom the tasks are entrusted to exercise preventative financial review. Along with ensuring the adherence to the legalities of the operations subject to this review, it is of great importance for these people to much more forcefully review



the economic wisdom, opportunities and needs for spending each leu. Practice has shown that when the attributes outlined by law were firmly exercised, preventative financial review succeeded in stopping, among other things, certain irrational, exaggerated supply situations. Thus, for example, at the Bucharest Heavy Equipment Enterprise they stopped the supply of 393 tons of medium and heavy plate steel since, considering the consumption standards and the quantities planned for the second half of 1980, the quantities already stored in the unit's depot provided the necessary amount for production. Similarly, at the Pipera Wood Processing Central they stopped the supply of 1,693 steel faucets worth 760,000 lei because they exceeded the amount necessary for production.

Working firmly for the strict conservation of resources, combatting waste and providing a rigorous financial discipline in the spending of society's funds are tasks of the greatest responsibility for all workers. The Romanian economy is in a stage in which the scope and rate of economic growth depends not only on the volume of resources involved in the production process, but, to a great degree, upon the efficiency of their use. This requires right from the first days of 1981 and the new five year plan that management and production personnel at all levels, with the help and effective contribution of financial-banking organs, work firmly in the direction of modernizing production and reducing material costs, indispensable conditions for giving a high level of dynamism to the entire economy.

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## DATA SHOWING ROLE OF CONSUMER CREDITS, 1976-80

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 20 Apr 81 pp 25-27

[Text] The most recent decision of the Federal Executive Council on the use of consumer credit will have a more severe effect than ever before on the possibilities and policy of producers of certain products. In the short term it will also have certain beneficial effects, above all from the standpoint of orientation toward export. However, at least two other of its dimensions also deserve examination. First, it is a question of the essential violation of the rights of the producers, and second, there is the possible impact on the behavior of savers.

The decision of the Federal Executive Council provides that consumer credit cannot be granted either from bank resources or the resources of organizations of associated labor in the economy. It would thereby seem to have set a definite precedent which could have very adverse consequences for future use of consumer credit and for its place and role in regulating demand on the domestic market. Past experience indicates that organizations of associated labor in the economy have granted considerably larger amounts of short-term consumer credit than the banks and also that the long-term consumer credit extended by organizations of associated labor in the economy has also been relatively high.

The decision prohibiting organizations of associated labor in the economy from extending credit from their own resources undercut their efforts to provide on their own additional sources for the sale of their products. For example, during last year Zastava was selling the Jugo-45 for 120,000 dinars on the basis of a commitment that the price would remain unchanged and that the car would be delivered in 1 year. The customer had to put up the money in cash. By what principle of economic logic or behavior can the producer now be prohibited from using those funds in the meantime to extend credit on the sale of other vehicles?

At the same time research conducted over many years on the behavior of bank balances of individuals shows that they have been steadily increasing, especially since 1965. The bank balances of individuals have been increasing regardless of the rate of inflation, and in every individual year the rate of inflation has exceeded the interest rate paid on bank balances of individuals. Over the last 10 years the average annual growth rate of retail prices, if we take them as representative of the rate of inflation, has been about 20 percent on a December-to-December basis; it was lowest in 1976, when it was only 8.5 percent, and it was

highest in 1980, when it exceeded 35 percent. The average annual rate of inflation has been several times greater than the rate of interest paid on bank balances.

Consumer Credit Extended Through Banks and by Organizations of Associated Labor in the Economy, as of the End of the Respective Period, in Billions

	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>January 1981</u>
Short-term						
By banks	0.4	0.4	0.6	1.2	1.9	1.9
By OUR [organizations of associated labor]	3.3	3.6	3.5	3.9	4.3	4.4
Long-term						
By banks	17.7	22.3	29.0	31.0	29.8	29.3
By OUR	10.3	13.1	16.7	18.7	18.9	18.6
Total						
By banks	18.1	22.7	29.6	32.2	30.7	30.2
By OUR	13.6	16.7	20.2	22.6	23.2	23.0

In spite of this, we repeat, balances have been increasing. Individuals are aware that the value of the dinar is dropping, sometimes drastically, but individuals believe what they are told by the society in which they live. It is not, then, interest which accounts for their saving, but the opportunity this offers of purchasing particular durable consumer goods. Most individuals can buy a house, an apartment, an automobile, household appliances, a color television set or a stereo, etc., only through savings and credits extended on the basis of those savings. Elimination of the possibility of extending credits, regardless of the sources from which it is extended, could have manifold adverse consequences. One could be withdrawal of deposits from banks. If they cannot be used as the basis for obtaining consumer credit, then those balances may be spent. We must assume that this will not occur on any broad scale, but it is possible.

#### The Level of Resources in the Personal Sector

The financial resources of individuals have been increasing year after year in the recent past. The rate of their growth has varied, but the tendency has been constant. The level of the financial resources of individuals may be expressed above all by their share in bank balances. Viewed in this way, the share of bank balances of individuals in total bank balances has been steadily increasing.

Bank Balances and Bank Balances of Individuals, as of the End of the Respective Period, Amounts Given in Billions

	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>November 1980</u>
Total bank balances	427.9	537.9	710.6	909.7	1,181.4
Short-term	318.6	390.1	502.4	618.7	784.5
Long-term	109.3	147.8	208.2	291.4	396.9

Table (continued)

	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>November 1980</u>
Bank balances of individuals	130.8	175.8	250.5	326.3	406.5
Short-term	79.5	106.7	154.0	195.9	234.5
Long-term	51.3	69.1	96.5	130.4	172.0
Share, in percentage					
In total balances	30.6	32.7	35.3	35.8	34.4
In short-term	24.5	27.3	30.4	31.6	29.9
In long-term	46.9	46.7	46.3	44.7	43.3

As can be seen from the figures above, the increase in the share of bank balances of individuals has been pronounced in recent years. The certain decline in the share that took place at the end of 1980 can be explained as follows: (1) the figures given for 1980 are for November, while in previous years they are for December. Every December there was a considerably larger growth of balances of individuals in the previous years because interest was credited. We can assume with sufficient certainty that in December 1980 there was an appreciable growth of bank balances of individuals; and (2) in 1980 the growth of ready cash was appreciably greater than in the previous years. For example, in 1976 cash grew by 7.2 billion, in 1977 by 9.2 billion, in 1978 by 18.7 billion, in 1979 by 15.7 billion, and in 1980 by 25.3 billion. Because of the larger growth of cash, there was a possibility of a smaller growth of money on deposit.

With respect to the growth of bank balances of individuals, we should point out that their increase was smallest in 1980 if it is corrected by the amount resulting from the effect of institutional measures. That is, in recent years there has been an evident tendency for bank balances in foreign exchange accounts to increase faster than balances of dinar accounts. This tendency can be illustrated with the following figures:

Annual Growth of Bank Balances of Individuals, Changes From Year to Year, Amounts in Billions

	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
Total	36.9	45.7	76.0	76.2	103.3
Balances of foreign exchange accounts	15.0	21.0	33.8	40.9	82.5
Balances of dinar accounts	15.0	21.0	33.8	40.9	82.5

[Table given as published in original--translator's note.]

We should note the essential characteristics of the changes that have occurred in this growth over the last 5 years. In the first two of those years, looking at the absolute amount, dinar balances increased more markedly than foreign exchange balances. In 1978 balances of both types of accounts increased equally, and over the last 2 years, especially in 1980, the growth of balances of foreign exchange accounts has been fourfold greater than that of dinar accounts.



We should also point out the characteristics of the growth of balances in recent years. In 1978 and 1979 the growth of bank balances of individuals was the same (76.0 billion). However, the growth of balances in 1980 was mainly the consequence of institutional measures. That is, if we correct the status of foreign exchange accounts at the end of 1980 (230.1 billion) by the approximate increase that occurred because of the change in the rate of exchange of the dinar (about 69.0 billion, or about 30.0 percent of the status at the end of the year), then the growth of foreign exchange balances was only about 13.5 billion. This includes the amount obtained from the crediting of interest, so that the growth was negligible or did not occur at all. The growth of dinar balances was 20.8 billion, and this again includes the increase resulting from interest. The stagnant growth of balances of individuals in bank accounts is partly explained by psychological factors and certain other adverse trends that occurred last year (high rate of inflation, etc.).

We also need to point out the characteristics of bank balances of individuals from the standpoint of the maturity of these deposits. We showed above that long-term deposits have a higher share than short-term deposits of individuals in total bank balances. It needs to be pointed out that the growth of long-term deposits has been mainly the consequence of an increase in foreign exchange time deposits, a growth that has been larger in relative terms than the growth of other forms of bank balances of individuals. As for long-term dinar deposits, their share in total balances of individuals has been dropping.

Bank Balances of Individuals, as of the End of the Respective Period, Amounts in Billions

	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
Total balances	131.5	177.1	253.1	329.3	432.6
Time deposits*	26.0	32.7	43.1	54.1	63.6
Share, in percentage	19.8	18.4	17.0	16.4	14.7

\* Includes: savings deposits, other funds, securities, and deposits for housing and utility construction.

Note: The figures on the level of bank balances of individuals given in this table do not altogether agree with the figures given above on the level of bank balances of individuals and on their share in total bank balances. The difference is negligible and occurred because two tables in a single statistical source did not agree in what they included.

Accordingly, the increase of long-term deposits of individuals and their relatively high share in total bank balances are mainly explained by the high growth of foreign exchange time deposits through which individuals are obtaining relatively high income: partly because of the fairly high rate of interest and partly because of the steady deterioration of the rate of exchange of the dinar against leading world currencies.

## Level of Consumer Credit

The level of consumer credit can be defined in several ways: as the change in their level in absolute amounts from year to year, in terms of their share in total retail sales, or in terms of their size relative to bank balances of individuals. Space does not allow extensive considerations, and we will limit ourselves solely to changes in the absolute amount of consumer credit and their size relative to bank balances of individuals. In this context the following changes have occurred over the last 5 years:

Bank Balances of Individuals and Consumer Credit, as of the End of the Respective Period, Amounts in Billions

	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>January 1981</u>
Bank balances	131.5	177.1	253.1	329.3	432.6	447.1
Consumer credit	50.8	65.2	94.0	123.0	161.3	163.6
Ratio of credit to balances	38.6	36.8	37.1	37.5	37.3	36.6

There is no doubt that a relatively stable relationship exists between bank balances of individuals and the credit used. Over the last 5 years the changes are not great, but these relations differ essentially from the relations that occurred, for example, in 1971 (10 years ago), when the bank balances of individuals amounted to 30.4 billion, and the credit used 17.3 billion, which represented more than 50 percent of the bank balances.

Examined by months in 1980 the ratio of credit used to bank balances was as follows:

Bank Balances of Individuals and Consumer Credit Used

<u>1980</u>	<u>Bank Balances</u>	<u>Credit</u>	<u>Ratio of Credit to Balances</u>
January	327.4	121.1	37.0
February	325.0	122.7	37.8
March	325.2	126.0	38.7
April	328.5	129.5	39.4
May	334.6	132.8	39.7
June	386.0	137.7	35.6
July	395.0	142.1	36.0
August	399.0	144.2	36.1
September	401.3	148.2	36.9
October	405.7	153.7	37.9
November	409.7	157.2	38.3
December	432.6	161.2	37.3
January 1981	447.1	163.6	36.6

It is worthwhile to point out the change in the size of consumer credit relative to bank balances that occurred at the end of June, mainly because balances increased

as a result of the change in the rate of exchange of the dinar, and at the end of December, again because of larger balances, but this time because interest was credited on all balances.

An analysis of the ratio of total consumer credit--through banks and organizations of associated labor in the economy and for all purposes--to total bank balances of individuals indicates that over the last 10 years (1971-1980), only in the first year (1971) was the ratio of credit to balances very high (about 56.0 percent), in 1972 this ratio was 40.8 percent, and in all the other years examined and also in the months of 1980 that ratio did not exceed two-fifths of total bank balances.

There is no doubt that it would be rather oversimplified to observe that the pattern and the ratio of credit to balances cannot change by a greater or lesser percentage. We should emphasize, however, that economic policy measures over the last 10 years, which can be taken as a medium-term period, have been such that they have mainly allowed the ratio of consumer credit to bank balances of individuals to be quite stable in relative terms. The level of bank balances of individuals is a financial category that constitutes an integral part of the credit potential of the banks. Its level determines the business policy of the banks in several ways: the level of their total potential, its pattern with respect to maturity or change in the pattern with respect to maturity, the cost of the total credit potential or a part of it. It should therefore be borne in mind that the depositing of money in banks by individuals is a reflection of a particular policy of society toward those deposits and toward the personal sector and its financial policy. It is not beneficial to adopt measures which can have an essentially adverse effect on the behavior of individuals with respect to keeping deposits in banks.

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## NATURAL GAS PRODUCTION, OUTLOOK, IMPORTS FROM USSR

Zagreb VJESNIK in Serbo-Croatian 19 Apr 81 p 5

[Article by Salih Zvizdic]

[Excerpts] At INA-Naftaplin, the largest Yugoslav producer of petroleum and a probable large producer of natural gas, officials were not anxious to make any predictions about future production, as is the custom of geological and mining experts. The most responsible directors of the labor organization, engineers Mavro Popijac, Velimir Sarida, Nikola Cizmic and Josip Vugrinic, were willing only to say that in that regard they are optimists.

If, however, one realizes all that has been discovered in terms of the presence of significant new quantities of natural gas in the Pannonian basin and the Adriatic sea floor, then a slightly more liberal interpretation would lead to the statement that the prospects for natural gas production are better than good. Some experts even foresee the possibility that Yugoslavia will become an exporter instead of an importer of natural gas.

## The Natural Gas Pipeline from the USSR

At the Novi Sad Naftagas offices, they plan that this year they will produce 1,270 million cubic meters of natural gas at existing natural gas fields and ones being developed; by 1985 they project production of 1,650 million cubic meters, and in 1985, fully 2,400 million. [Translator's Note: The date 1985 is repeated.] A leap in production of this magnitude in Yugoslav natural gas production is based on realistic projections, and there is a high probability that these figures will be surpassed. In general natural gas production in the country will at least double within 5 years.

In petroleum and natural gas production in the world and domestically, sudden increases in production are rare; they usually occur when drillers very unexpectedly come upon large deposits. The time when such unexpected deposits were found has, however, disappeared forever. Nowadays crude oil and natural gas are found by persistent and systematic, but above all very expensive searches under the land and the seas, so that surprises are essentially eliminated. Another factor involves the preliminary geological and geophysical measurements that are conducted in the same way for drill holes from which crude oil and natural gas pour as for dry holes that must be abandoned. That is the way it is, and it will probably continue so for decades to come!



We might mention that explorations alone for crude oil and gas in the Pannonian basin from this year until 1985 will cost fully 30,000,000,000 dinars, including more than 100 million dollars for essential imports of component equipment. Nowhere are production risks as high as in the production of crude oil. Indeed, due to solid geological and geophysical preparations, the drilling tower today can hardly be placed on a "wrong place," for as a rule some natural gas or oil is always found. Yet quantity is the important thing! If one must invest more than the return, it does not pay to make the investment at all.

A diagram for increasing natural gas and oil production in Yugoslavia shows that as a rule there are no surprises, but rather there is progress step by step, with persistence. Thus in 1976 INA-Naftaplin and Naftagas produced a total of 3,930,000 tons of crude oil and 1793 million cubic meters of natural gas; by last year 4,260,000 tons of oil and somewhat more than 2 million cubic meters of gas were produced. [Translator's Note: A decimal point was apparently omitted in the natural gas figure for 1976.] Obviously this growth came after arduous labor and large investments.

#### The Risks are Great, But....

In the last 10 years or so most European countries that have deficits in natural gas (with the exception of The Netherlands) have provided for their needs by imports from the USSR and Iran, two countries that have together one-third of total world reserves of natural gas. In the last few years, Algerian gas has also become very important for Europe, so that preparations are under way to build a pipeline under the sea from Algiers via Tunis to Italy and on into Europe. It is anticipated that Yugoslavia will hook into this pipeline, and agreement has been given for that hookup.

In 1975, Yugoslavia began to import natural gas from the USSR, and today it imports about 2700 million cubic meters annually. The gas pipeline from the Soviet Union crosses Czechoslovakia and Austria and enters Yugoslavia, to supply Croatia, which annually imports about 545 million cubic meters, and Slovenia, which imports some 684 million cubic meters a year. Another pipeline from the USSR that crosses Hungary supplies natural gas to the Naftagas enterprise in Novi Sad, amounting to imports of about 1500 million cubic meters, of which 230 go to Vojvodina, 980 to Serbia proper, and 290 million cubic meters to Bosnia and Hercegovina.

The USSR ships the same amount of natural gas to all its customers the year round. The problem is, however, that gas consumption varies, so that for example in the summer months, when heating is not necessary, consumption drops in half. When one considers that domestic natural gas production also continues to flow, it is not difficult to guess that in certain seasons there is an imbalance between consumption and available quantities of gas. In simple terms, there comes a time when there is twice as much gas as is needed. Today in Yugoslavia that problem is resolved by artificially retarding or totally halting domestic production in some fields during the summer period, as the foreign supplier does not reduce deliveries during the time when less is needed in Yugoslavia, since that supplier wishes to resolve its own surplus problem.

That is the reason for the appearance of the acute problem regarding storage of "summer" natural gas and in general, all temporary surpluses of domestic production. At INA-Naftaplin, they decided in a rather bold move to store the excess natural gas in underground, natural geological formations (at depleted crude oil or natural gas fields). This is a first in Yugoslavia, although that method is not new in other countries (such as the United States and the Soviet Union); altogether in the world there are some 150 such storage fields underground.

Engineer Antun Bauk and a group of other engineers at INA-Naftaplin are working on that large and interesting project, and it is anticipated that the first underground natural gas storage facility will be in use in 1984; it will most likely be located in underground geological formations near Zagreb.

#### Natural Gas in the Trans-Drava Region!

At INA-Naftaplin the highest hopes are being placed in newly discovered gas fields at Molva and Kalinovac, where very significant reserves have been confirmed. The natural gas at those fields is under great subterranean pressure and it has high strata temperatures, as well as hydrogen sulphide that is not only poisonous but also corrodes equipment. In some places in those fields, these elements are found in quantities that are unique in the annals of worldwide geological drilling. Among the 1600 engineers and technicians from INA-Naftaplin there are, however, some top experts who, with assistance from foreign colleagues, have already developed methods to tame that natural rebel.

In addition to those fields, great hopes are also placed in the Oresac locality, where the deepest drilling so far in the Pannonian basin has taken place (to 5185 meters); other high prospects are at the drilling near Pitomaca and near Stari Gradec, where significant natural gas reserves have also been found. The entire Drava depression from Legrad to Bizovac near Osijek is regarded as lying on a deposit of natural gas.

There are also significant natural gas reserves at the Adriatic floor drilling sites.

#### The Great Natural Gas Offensive

There is no doubt about the existence of significant reserves of natural gas in the Pannonian basin, and along with that there are high hopes for the Adriatic floor sites. Gas has been confirmed in the northern Adriatic region, and by 1985 it will probably be under exploitation. Now explorations are being conducted along the central and southern Dalmatian coastal regions. Yugoslavia will soon undertake that task together with foreign companies. As graduate engineer Mavro Popijac stated, in addition to that all Yugoslav enterprises that have an interest have been offered the opportunity, under specific conditions, to become involved in these explorations with the right to share in the profits.

In eastern Yugoslavia, Naftagas is exerting great efforts to move forward to the exploitation of certain more significant natural gas fields in Vojvodina; this year explorations will be extended to the Velika Morava river valley. Adriatic floor explorations along the Montenegrin coast, which are being conducted by American companies, indicate the possibility of discoveries of crude oil and natural gas, and explorations are continuing.

All these facts show that a great offensive is developing at full strength, with the goal of exploring all "suspected" geological strata under the land and under the sea. Of course, all of that is very expensive and tied to risks of missing the deposits, but on the other hand a single solid find of crude oil or natural gas can pay for all the investments of coming decades. All of the explorations done so far have been encouraging! Even those who until yesterday doubted now speak of Yugoslavia as a possible source of natural gas. And when something is said, the truth is usually not far away.

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## YUGOSLAV-CSSR TRADE PLANS TO 1985

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 27 Apr 81 p 39

[Text] The plan calls for the volume of trade with Czechoslovakia to exceed \$7 billion in the period up to 1985. That country is in any case among Yugoslavia's largest trading partners (the largest among the East European countries after the Soviet Union). Even now, as was announced in a meeting of the Czechoslovakia Section of the Yugoslav Economic Chamber, contracts have been concluded for 57 percent of the envisaged volume of trade over the next 5 years, the most important place among them being taken by those pertaining to raw materials and intermediate products. Final arrangements have been made to import about 700,000 tons of coking coal a year as well as about 450,000 tons of products of ferrous metallurgy.

The volume of trade this year has been fixed at \$1.4 billion. The results in the first quarter already suggest that the planned volume will be achieved, since transactions have been concluded in the amount of \$782 million; our imports represent \$404 million of this, and our exports \$378 million. It is an especially favorable circumstance that financing has been provided for in Czechoslovakia to cover all imports from Yugoslavia for this year, and it now remains for the Yugoslav side to submit exact prices and delivery dates. An answer also needs to be found to the question of exports of nonferrous metals to Czechoslovakia, which they are seriously counting on (30 percent of their needs for zinc, for example, are met by imports from Yugoslavia), since this could in turn have an effect on deliveries of products of ferrous metallurgy, which are today critical on the Yugoslav market. There is also a need, it was stated in the meeting of the section, to lift the ban on imports of equipment from that country (the reference is primarily to trucks), since contracts have already been concluded covering these transactions.

Trade over the past 5 years attained a value of \$4.9 billion, which was 14 percent above what was planned, but here we should take into account the impact of prices on the volume of trade in value terms and the fact that intermediate products and raw materials were predominant in its structure (2.2 million tons of products of ferrous metallurgy, 3 million tons of coking coal, about \$60 million worth of raw materials for the chemical industry, while nonferrous metals were an important item in our exports). Imports of machines and equipment from Czechoslovakia showed an annual value of about \$90 million, while exports of equipment last year barely reached a value of \$47 million.

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## INCREASED FARM INCOME, END OF 1980

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 27 Apr 81 p 39

[Text] In the fourth quarter of last year the average farm household had 36,125 dinars of income, which is 30 percent more than in the corresponding period of 1979. Farm income comprised 44 percent of the total amount and because of the rising prices of farm products increased far faster than nonfarm income (35 percent [for farm income] and 26 percent [for nonfarm income] over the fourth quarter of 1979). These rates also changed the structure of income; more precisely, there was an increase in the share of farm income, which a year ago had a share of 42.3 percent of the total. The most significant increase in the category of nonfarm income was recorded by income from the sale of buildings, land and equipment (more than threefold), but the share of this income in total income remains negligible at about 2 percent. The expenditures of rural households are characterized by a considerably lower growth--only 18.3 percent over the fourth quarter of the previous year, an increase that is half of the overall rise of prices in that period. The two principal expenditure categories--for the farm and related activities and for the household--showed a somewhat faster growth than the average growth (21.1 percent and 20.8 percent, respectively). Expenditures for the farm, incidentally comprised 27.6 percent of total expenditures, and expenditures for the household 60.5 percent. It is also significant that the share of food costs in rural households increased from 19 percent to 21.1 percent.

So-called "pure" agricultural households had an average income of 32,476 dinars in the fourth quarter of 1980, or 33 percent more than in the corresponding period of the previous year. However, there was a considerable drop in the share of farm income--from 68.9 percent to 65.7 percent, this category showing a slower growth rate of 27.1 percent. At the same time the drop in the share of this income was completely offset by "other income from work," a category in which the statistical service includes income from hauling, cottage crafts, the trades, work for private employers, etc. The expenditures of these households increased at a slower rate of 20.6 percent, and 50.9 percent of the expenditures were for personal consumption (this category comprised 54.2 percent at the end of 1979).

The average income of mixed households was 38,471 dinars. By contrast with the "pure" farm households, farm income rose all of 54.3 percent, and its share increased from 26.5 percent to 32.3 percent. There was at the same time a considerable increase in expenditures for the household (their share increasing from 62.3 percent to 65.8 percent), almost exclusively because of higher expenditures for food.

## PRODUCTION FIGURES LISTED FOR PRODUCTS OF MINING, METALLURGY

Belgrade TEHNIKA in Serbo-Croatian No 3, 1981 p 411

[Excerpt] Table 1. Production of Important Mining and Metallurgy Products

Tabl. 1 — Proizvodnja važnijih proizvoda u rudarstvu i metalurgiji

		1975.	1980.	plan 1980.
1. uglj	28. mil. t	35,5	47,0	55—58
2. sirova nafta	mil. t	3,7	4,6	4,6
3. ruda gvožđa	mil. t	5,2	5,0	10,0—11,0
4. sirovo gvožđe	mil. t	2,0	2,8	4,0—4,3
5. sirovi čelik	mil. t	2,9	4,4	5,7—6,3
6. ruda bakra	mil. t	14,6	21,7	
7. Bakar	29. hilj. t	137	145	185
8. iz domaćih sirovina	hilj. t	100	—	10,4
9. iz uvoznih sirovina	hilj. t	37	—	51
10. Olovo	hilj. t	126	132	239
8. iz domaćih sirovina	hilj. t	107	—	225
9. iz uvoznih sirovina	hilj. t	19	—	14
11. Cink	hilj. t	101	110	174
8. iz domaćih sirovina	hilj. t	70	—	154
9. iz uvoznih sirovina	hilj. t	31	—	20
12. Antimon regulus, tona	hilj. t	2155	2500	3000
8. iz domaćih sirovina	hilj. t	—	—	1800
9. iz inostranih sirovina	hilj. t	—	—	1200
13. Aluminijum	hilj. t	168	203	365
14. Sirovi magnezit	hilj. t	458	800	
15. Sol	hilj. t	684	1055	
16. Azbestno vl. i konc.	hilj. t	19	140	
17. Kv. pesak i kvarciti	hilj. t	1600	2900	
18. Sirova vatrosolna glina	hilj. t	350	580	
19. Koncentrat fosfata	hilj. t	—	900	
20. Bentonit	hilj. t	130	425	
21. Barit	hilj. t	60	81	
22. Feldspat	hilj. t	59	160	
23. Ker. glina i kaolin	hilj. t	328	800	
24. Sintermagnezit	hilj. t	257	410	
25. Bazični vatr. mat.	hilj. t	160	300	
26. Samotni vatr. mat.	hilj. t	200	335	
27. Silika materijal	hilj. t	14	50	

Key:

- |                               |                                    |
|-------------------------------|------------------------------------|
| 1. Coal                       | 16. Asbestos fiber and concentrate |
| 2. Crude oil                  | 17. Quartz sand and quartzite      |
| 3. Iron ore                   | 18. Fire clay raw material         |
| 4. Pig iron                   | 19. Phosphate concentrate          |
| 5. Steel                      | 20. Bentonite                      |
| 6. Copper ore                 | 21. Barite                         |
| 7. Copper                     | 22. Feldspar                       |
| 8. from domestic raw material | 23. Ceramic clay and kaolin        |
| 9. from imported raw material | 24. Sinter magnesite               |
| 10. Lead                      | 25. Basic refractory raw material  |
| 11. Zinc                      | 26. Grog refractory raw material   |
| 12. Antimony regulus, ton     | 27. Silica material                |
| 13. Aluminum                  | 28. millions of tons               |
| 14. Magnesite                 | 29. thousands of tons              |
| 15. Salt                      |                                    |

CS0: 2800/237

END

**END OF**

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**DATE FILMED**

June 12, 1981